The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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VALUABLE MINING PROPERTY, SITUATE IN THE FOREST OF DEAN, GLOUCESTERSHIRE.

MESSRS. BROOKS and GREEN have received instructions to SELL, by AUCTION, at the Mart, on Wednesday next, 28th August (unless, in the meantime, disposed of by private contract), all those GALES, or GALE-WORKS, known as the SCOWLES IRON MINE, situate at Coleford, Gloucestershire, with two newly sunk shafts. The iron ore is of the richest quality, and the present very flourishing state of the iron trade continues to render this a very eligible opportunity for any gentleman of moderate capital seeking to realize a handsome income from a lucrative and agreeable occupation.

Printed particulars may be had at the Colliers' Inn, Coleford; the South Hall, Gloucester; of T. H. Howard, Esq., solicitor, Cheltenham; and of Messrs. Brooks and Green, estate agents, surveyors, and auctioneers, 20, Old Bond street. 1

RESTORMEL IRON MINE, LOSTWITHIEL.—FOR SALE, TWELVE FORTY-EIGHT PARTS, OR SHARES, in this VALUABLE PROPERTY, from which upwards of 20,000 tons of ore have been shipped annually, at highly remunerative prices. A considerable outlay has been made within the past few years in opening the lower workings and draining the ore ground, whereby upwards of 25,000 tons per annum can be secured for the next twenty years.—Railways are laid down from the mine to the water edge, and all the necessary appliances for working have been adopted on an extensive scale, so as to secure the most economical mode of rendering the article, which is in free demand. The property is held under the Duchy of Cornwall for a term, of which seventeen years are unexpired, at the moderate dues of 6d. per ton.

For further particulars apply to Mr. W. Longmaid, Alfael Works, Plymouth; or Mr. Henry Hughes, Mining Record Office, 3, Shorter's-court, Throgmorton street. 2

TO BE LET, with immediate possession, the extensive and valuable IRON AND WIRE WORKS at GWERSYLLT, near WREXHAM, Denbighshire.—There are TWO excellent STEAM-ENGINES, with blowing apparatus and other machinery requisite for manufacturing charcoal bottom iron and pipeing; EIGHT PUDDLING and HEATING FURNACES, FOUR POWERFUL WATER-WHEELS, for working bellat rolls; Two large hammers, for drawing out forge and bar iron; an excellent assortment of blocks, adapted for making wire through all its branches, including annealing barrels and machinery, for executing wire of every description, as well as umbrella stretchers; also annealing stoves and stoves, rollers and pinions, an excellent machine, for weighing waggons, carts, &c.—The BUILDINGS, &c., are in good repair, and comprise all that is requisite for the carrying on an extensive and profitable business; to which are attached TWENTY COTTAGES, for the use of the workmen. The intended railway from Wrexham to Chester, Liverpool, &c., will pass near the said works.

For further particulars apply to Richard Thompson, Esq., Prescot Hall. 3

TO CAPITALISTS AND OTHERS, seeking an ELIGIBLE INVESTMENT, and an opportunity of entering into an extensive concern connected with the IRON TRADE, in working a Patent of established reputation, and the trade connected therewith, IN LONDON, which admits of almost indefinite extent. The unexpired term of the patent right—the trade which has been founded upon it—the appropriate machinery, stock in hand of materials and manufactured articles, together with the lease of the premises, WILL BE SOLD, in one lot.

If required, a portion of the purchase-money might remain on approved security.

For particulars apply to Wire and Wade, auctioneers, &c., 180, Minories, London. 4

TO CAPITALISTS DESIRING PROFITABLE AND SAFE INVESTMENTS.—TO BE LET, on long leases and advantageous terms, SEVERAL COAL FIELDS, of the best quality, both BITUMINOUS and ANTHRACITE, the veins of IRON MINE, FIRE-CLAY, QUARRIES of STONE, MARBLE, and LIMESTONE, &c.; ELIGIBLE SITUATIONS for establishing MANUFACTORIES of any kind, in many cases with the advantage of water-power, and other strong inducements; a large and newly-erected BUILDING, with a STEAM-ENGINE and other MACHINERY, capable of being converted to any use as a manufactory, adjoining a railway, within two miles of a floating dock; a most extensive BITUMINOUS COLLIERY and COAL-FIELD, now working 100 tons per diem, and capable of producing twice the quantity, and situated midway between two shipping harbours, each within the distance of two miles.

All the foregoing coal fields and properties have easy communication by railway and canal with the excellent and improving shipping harbours of Llanelly and Pembrey, Carmarthenshire, and are well worth the attention of persons desirous of safe investment of capital. Long leases will be granted, and every facility and encouragement offered.

For further particulars apply to F. L. Bevan, solicitor, Llanelly, Carmarthenshire, or to John Williams, solicitor, 1, Verulam buildings, Gray's Inn, London. 5

FOR SALE, A 70-INCH CYLINDER ENGINE.—TO BE SOLD, BY PRIVATE CONTRACT, a 70-inch CYLINDER ENGINE, with [illegible] length of stroke in the cylinder 10 feet, and in the shaft 7 ft. 6 in. The same will be sold at a very low price.—For particulars, and to treat for the same, apply to Messrs. Hocking and Lewis, engineers, Redruth.—July 10. 6

TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, and OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.—JOSEPH PRACTALY'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shewing of its great superiority—Samples forwarded on application at the Manufactory, Simon street, Wellington street, Blackfriars road, London. 7

TO ENGINEERS, ARCHITECTS, AND BUILDERS.—PATENT METALLIC SAND CEMENT.—The proprietors of the Patent Metallic Sand, after two years' experience of its merits, confidently recommend it to the attention of engineers and architects, as a valuable material in all works where hydraulic concrete are necessary, and great strength is required. From the chemical properties of the Metallic Sand, it forms, when mixed with lime (or a hydraulic cement of great strength and density) with water, which is one of its principal constituents, combining with the lime to cause it to cement, and consolidating it to a greater degree of hardness than can be obtained by admixture with any other known material. Concrete and mortar, in which the Metallic Sand has been used, are more durable than any other, continuing to increase with time and not being affected by damp, otherwise than increasing in hardness from the combination which is thereby occasioned. Employed as a cement to face water from brick-work in vaults, sewers, and other underground works, the Metallic Sand is found cheaper and, from its cement-adhesive qualities, far better a more solid and serviceable body, in combination with the brick-work, than any other cement at present known; and in all cases the Metallic Sand is found the best substitute for pozzolano that has ever been presented to the public. As an external stucco, the Metallic Cement requires a little stone colour without the aid of paint of that or any kind, does not require, and is entirely free from cracks and blisters, and continues to improve, both in appearance and durability, by exposure to the weather. The proprietors come with confidence to works in which the Metallic Sand has been extensively employed as concrete and mortar.—Viz., at the new Houses of Parliament, the foundations of which were entirely formed of the Metallic Concrete; the principal tunnels on the Birmingham line of railway, and other important buildings, which are more particularly referred to in the prospectus, where also will be found references to very extensive erections which have been executed with the Metallic Cement, and among the more recent may be named the new Guardian Club-house in King William street. Further information will be given, and specimens shown, on application to C. C. Dyer, 4, New Broad street; and of the Metallic Cement Wharf, King's Arms stairs, opposite Pratt street, Camden New Town. 8

SEYSSEL ASPHALTE COMPANY.—"CLARIDGE'S PATENT."—ESTABLISHED 1838.

THE ASPHALTE is a bituminous limestone, obtained from an inexhaustible mine at Pyrimont, in the Jura Mountains. Previously to its introduction into this country, in 1838, the material had been used for many years in France, and, from its great utility, was extensively patronized by the Government of that country.

Among the various uses to which it may be applied, the following may be enumerated:—Foot pavements, public and other, of the Carriage Approach to Mansions, Garden Walks, and Terraces; the Flooring of Churches and other horizontal offices; also of Coach Houses and Stables, Dog Kennels, Barn floors, new Brewers', Piggeries, Poultry houses, Pine stoves, and Hothouses.—For Roofing Gateway of Buildings and other Arches, the Lining of embankments Culvert near Rivers, to prevent the ingress of the Water, also in Covering the Arched line of Walls, to prevent damp rising.—The application of the Asphalte in preference to concrete, recommended by the Commissioners of the Post Office, in their contracting the Lowestoft station to the north Yarmouth Railway and works. It is an excellent Cement, as applied to Double Brick-nogging, or White bath for exclusion to the communication of the air, the Lining of Tanks, Fish ponds, and other kindred purposes.

L. Tizard, Secretary, Seyssel Asphalte Company's Office, Claridge's Patent, Hungerford Stairs, London.

N.B. Country merchants and builders desirous to be appointed for the sale and application of the Asphalte in Country Districts. 9

OFFICE FOR PATENTS, 7, STAPLE INN, HOLBORN.—A BARRISTER (not concerned) and two solicitors to Mr. Bennet, solicitor (Inventors and Patentees that, at his OFFICE, they may obtain

REFERENCE TO A CLASSIFIED LIST OF PATENTS,

from their own patents, which shows at one view all the Patents ever granted for that particular object, whether they were ever worth anything or not, and prevents the information and otherwise unknown.—SPECIFICATIONS and FOREIGN PATENTS and DESIGNS, and TRADE and ORNAMENTAL MARKS REGISTERED.

SPECIFICATIONS carefully prepared, and REPORTS of REGISTERED SPECIFICATIONS, Inventions, or mechanical letters.

EXTENDED and WORKING DRAWINGS executed with accuracy and dispatch. 10

TO THE WORTHY AND INDEPENDENT FREEMEN-HOUSEHOLDERS OF THE WARD OF PORTSOKEN.

GENTLEMEN,—Having been honoured by a requisition from a number of influential electors, that I would allow myself, should a vacancy occur, to be put in nomination for the high and distinguished position of Alderman of your respected Ward, I have no hesitation in declaring, that I should feel myself highly honoured by being the object of your choice, and should consider it an loss my duty, than my pleasure, in attending to all your best wishes as Alderman and Magistrate. I should therefore it equally my duty to support the various charitable institutions of your Ward; and whatever patronage the office may invest me with, I should hold in trust and for the benefit of my constituents generally, without distinction of religious or political opinions.

I have the honour to be, Gentlemen, your obedient servant,

FRANCIS GRAHAM MOON,

15, Finsbury-square, July 5. Sheriff of London and Middlesex. 11

ROYAL CORNWALL POLYTECHNIC SOCIETY.—Notice is hereby given, that the TWELFTH ANNUAL EXHIBITION will be HELD at the Polytechnic Hall, Falmouth, on Tuesday, the 27th August, and two following days. At the same time a BAZAAR will be HELD for the BENEFIT of the Society, to which contributions are most respectfully solicited.

Falmouth, August 12. ROBERT HUNT, Secretary. 12

INVENTORS and other GENTLEMEN in the POSSESSION of INTERESTING MODELS or WORKS OF ART, who intend to DEPOSIT them at the ROYAL POLYTECHNIC INSTITUTION, are respectfully requested to FORWARD them on or before the 31st inst., in order that they may be inserted in the revised catalogue. All such works are received gratuitously, and the deposit has free admission to the Institution. Working models are daily explained, and, where the subjects admit, are described in a lecture.

R. J. LONGBOTTOM, Secretary. 13

N.B.—The Institution is open daily as usual.

SOUTHAMPTON DOCKS.—Notice is hereby given, that the directors have concluded ARRANGEMENTS with the LONDON AND SOUTH-WESTERN RAILWAY COMPANY, under which all kinds of EXPORT or IMPORT MERCHANDISE (unless expressly) LANDED at or to be SHIPPED from their DOCKS, will be CHARGED to the CONSIGNEE or CONSIGNER, for CONVEYANCE BY RAILWAY TO OR FROM SOUTHAMPTON, at TEN SHILLINGS PER TON WEIGHT.—Goods can be carried or lightered to or from the Nine Elms Terminus, at Vauxhall, at as low rates of charge as to or from the usual places of shipment or deposit in London, and are free from charge for wharfage or cranage. The railway carriages load and deliver at the quays and warehouses of the docks; merchandise landed one day at Southampton can thus be in the proprietors' warehouses in London on the following day; and goods for shipment can, in less than twenty four hours from being sent to Vauxhall, be on board ship at a point in the English Channel which it has often occupied weeks to reach by sea—whilst the delay and additional risk, and insurance, which that passage involves, will be avoided and saved.

To passengers, too, this route is most desirable; they can reach Southampton by railway in three hours—step on board their ship from the quay of the dock, and will thus be at once, as compared with a departure from the port of London, considerably advanced on their voyage.

To facilitate the transaction of these branches of business in all their details, the directors have arranged with Mr. John Marshall, 56, Birchin-lane, Cornhill, London, and 70, High-street, Southampton, to act on their behalf as Commercial Agent for the docks; and every information relating to the business of the docks, and the conveyance of goods to or from them by the railway, may be obtained on application to him as above, or at the company's offices in London or Southampton.

GEO. SAINTSBURY, Secretary.

Southampton Dock Office, 19, Bishopsgate within, Aug. 5. 14

STEAM TO INDIA via EGYPT, MALTA, ITALY, ALEXANDRIA, AND THE PENINSULAR PORTS.

PASSAGE TO BOMBAY, MADRAS, AND CALCUTTA.

The Peninsular and Oriental Steam Navigation Company's steam ships START FROM SOUTHAMPTON THE FIRST OF EVERY MONTH,

arriving at Alexandria about the 10th. The Hon. East India Company's steamers leave Suez for Bombay about the 23rd of the month, and for Madras and Calcutta the Peninsular and Oriental Steam Navigation Company's steamers, Hindostan and Bentinck, or Government steamer. The Peninsular and Oriental Steam Navigation Company have now a steamship on the Mediterranean Coast, and other great improvements have lately been introduced into the transit through Egypt.

STEAM TO MALTA, ITALY, &c.

A steamer from Southampton leaves the first of every month for Malta, Gibraltar are steamers to Naples, Genoa, Civita Vecchia, three times a month.

STEAM TO OPORTO, VIGO, LISBON, CADIZ, AND GIBRALTAR. 15

A steamer leaves Southampton every Thursday at 1 p.m. for the above ports.

Apply at the Peninsular and Oriental Steam Navigation Company's offices, 31 St. Mary axe, London, where only passages can be secured throughout.

ANDREW SMITH'S PATENT WIRE ROPE FOR MINING, RAILWAY, and SHIPPING PURPOSES.—The Royal yacht VICTORIA AND ALBERT, PENELOPE, FIRADO, HERMES, and several other ships in the Royal Navy, as well as the Mercantile Service, have been FITTED WITH ANDREW SMITH'S PATENT WIRE ROPE; it is about half the size and weight of hempen rope and one-third cheaper.—For particulars apply to Andrew Smith, 2, White Lion court, Cornhill; 32, Princes street, Leicester square; or the works, Millwall, Poplar, London. 16

R. S. NEWALL AND CO.'S PATENT IMPROVED WIRE ROPE is now in very EXTENSIVE USE in the MINING DISTRICTS, and on several of the PRINCIPAL RAILWAYS throughout this country. It is almost exclusively used on the Blackwall Railway, which it has been found superior to any other.

It is also used on the RIGGING of the GREAT BRITAIN steamer, of which some and other vessels.

It is one half the weight of hemp rope—of equal strength.
It is one sixth of the bulk.
It is cheaper than rope.
It has lasted as long as five hemp ropes, doing the same work on railways.

Specimens and testimonials may be seen, and every information as to its application, &c., will be given at the company's works, GATESHEAD-UPON-TYNE. 17

PORTER'S PATENT GALVANIZED CORRUGATED AND PLAIN IRON ROOFING, IRON FENCES, HURDLES, &c.

GROVE WORKS, SOUTHWARK,

Second Turning on the right from Southwark bridge.

The PATENT GALVANIZED IRON ROOFS' process is now being used for ROOFING the new Houses of Parliament, also at Woolwich dockyards, by the Ordnance Board, and several railway and other public companies. It is particularly adapted for the colonies, and has been shipped by J. Porter to Ceylon, East and West Indies, &c. The above description of roofing is now well suited for schools, farm yard sheds, and the great buildings of all kinds.—Drawings and every information given by applying at the works as above. 18

PAYNE'S PATENT PROCESS FOR PRESERVING AND IMPROVING WOOD.

RAILWAY CONTRACTORS, BUILDERS, AND FOREIGN, are requested to investigate the above.

A LIBERAL DISCOUNT ALLOWED.—Applications for LICENCES to

PAYNE AND LODER,

WHITEHALL WHARF, CANNON-ROW, WESTMINSTER.

For all their other engines, will be immediately attended to. (FLEETWOOD-ON-WYRE, Lancashire; WORKSOP, Nottinghamshire. 19

THE PATENT SAFETY FUSE, FOR BLASTING MINES IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the safest, cheapest, and most expeditious mode of effecting this very important operation. From many testimonials in the possession of the Manufacturers have been extracted those given by part of the following; they submit the following letter, recently received from John Taylor, Esq., F.G.S., &c., &c.—

"I am very glad to hear that my recommendations have been of any service to you. Those have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name in any manner of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Tuckingmill, Cornwall. 20

OFFICE FOR PATENTS OF INVENTIONS AND REGISTRATION OF DESIGNS,

No. 10, LINCOLN'S INN FIELDS, LONDON.

INVENTORS and CAPITALISTS are informed, that all BUSINESS relating to the SECURING and DISPOSING of BRITISH and FOREIGN PATENTS, preparation of SPECIFICATIONS, and DRAWINGS OF INVENTIONS, is transacted with care, accuracy, and despatch.

REGISTRATION OF DESIGNS.—Under the new Act, 5 and 7 Vic., cap. 65, ARTICLES OF UTILITY, whether to metal or other substances, may be protected in the three kingdoms for three years, at a small expense; Ornamental Designs may also be registered under the Act 5 and 6 Vic., c. 100.

A prospectus, with full particulars as to the course to be pursued, and the expense, &c., of taking provisional, either by Letters Patent or the Designer's duly, and to that grant, apply (by letter, personally, or by agent), to Mr. Alexander Bryson, 10, Lincoln's Inn fields, London. 21

REGISTRATION OF MINING RECORDS.—At a Meeting, held on Tuesday, the 30th July, 1844, in the Meeting Room of the Natural History Society, Newcastle-upon-Tyne, pursuant to public advertisement, of gentlemen favourable to a NATIONAL SYSTEM FOR PRESERVING MINING RECORDS,

THOMAS SOPWITH, Esq., in the chair,

It was unanimously resolved,

On the motion of Nicholas Wood, Esq., seconded by George Johnson, Esq.,

That this meeting is of opinion that a general and uniform registration of mining operations throughout the kingdom would tend to prevent many fatal accidents, would, in other respects, be of eminent utility to the interests of all persons concerned in mines, and would also confer a great national benefit.

On the motion of the Rev. John Collinson, seconded by J. H. Fryer, Esq.,

That an association of persons be immediately formed, in accordance with these views, to be called "THE NORTH OF ENGLAND ASSOCIATION FOR PROCURING A NATIONAL SYSTEM OF PRESERVING MINING RECORDS."

And on the motion of William Lowe, Esq., of Prudhoe Castle, seconded by William Hutton, Esq.,

That, in furtherance of these objects, the draft of a bill on this subject, prepared by this meeting by William Bainbridge, Esq., barrister, be forwarded to the members for the borough, for the purpose, if possible, of being read a first time in the House of Commons during the present session of Parliament, and, being ordered to be printed, in order that the same may be generally circulated amongst the mining districts of the kingdom, for the opinion and consideration of those interested in mines.

WILLIAM BAINBRIDGE, Hon. Sec. pro tem. 22

AT a MEETING of the IRON and COAL MASTERS, and other PARTIES interested in the TRADE and MINERAL PROPERTY of SOUTH STAFFORDSHIRE, held pursuant to public advertisement,

JOHN WILLIAMS, Esq., in the chair

It appearing from statements and documents laid before the meeting, that the consumption of South Staffordshire coal in the markets of the midland counties has greatly declined since the year 1839, and that the diminished consumption is principally to be attributed to the heavy imposts and charges to which the coal of this district, in passing to those markets, has been for some time past subjected—the aggregate amount of the imposts and charges on coal passing to the midland counties from other coal districts being considerably less than the aggregate amount paid on the coal of South Staffordshire taken to the same counties; and a statement having also been laid before the meeting, showing that a further decline in the consumption of South Staffordshire coal in the midland counties has taken place since the late rise in the haulage rates of the Warwick and Birmingham, Warwick and Napton, and Coventry Canals.

Resolved unanimously—

1. That the district of South Staffordshire, considered with reference to its mineral wealth, its great and increasing works, and its numerous population, is not surpassed by any other district in the kingdom.

2. That, in the opinion of this meeting, it is essential to the prosperity and full development of the resources of this important district, that the navigable communications between the district and the adjacent counties, the midland counties, and the principal seaports of the kingdom, be placed, as nearly as may be, on terms of perfect equality as to practicable, and that the rates of haulage payable thereon be confined within fair, just, and reasonable limits.

3. That, whilst new or improved communications have been made between the markets of the midland counties and other coal districts, the navigable communications between those counties and the district of South Staffordshire (with the exception of the important improvements made in the Birmingham Canal, and a shortening in the Oxford Canal between Kingsbury and Napton), have undergone no considerable improvement.

That, in addition to the extra expense in haulage incurred by the circuitousness, and complicated haulages, on the Warwick and Birmingham, Warwick and Napton, Coventry, Oxford, and Grand Junction Canals, the proprietors and consumers of South Staffordshire are subjected to various heavy imports and burthensome regulations, which greatly cramp and diminish the use of such communications in the districts of the midland counties and the metropolis.

4. That the Chairman, and Philip Williams, Esq., J. B. Pinley, Esq., and Messrs. Sparrow, Thomas Bagnall, Bevan, Tunnicliffe, and James Spittle, be appointed a committee to prepare memorials, stating the difficulties and grievances under which the trade of this district labours, and that they be requested to take the earliest opportunity of laying the same before the Right Hon. the First Lord of the Treasury and the President of the Board of Trade.

5. That the before named gentlemen be also requested to attend the Birmingham Canal Committee, and urge them to undertake the shortening of a new canal, to connect the Fazeley Canal with the Oxford Canal, and to take such other steps for obtaining the objects of this meeting as they may think proper.

6. That the committee be also requested to wait upon his Grace the Duke of Sutherland, his Grace the Duke of Cleveland, the Marquis of Anglesea, the Earl of Dartmouth, the Earl of Bradford, the Earl of Lichfield, the Trustees of the Will of the late Earl of Dudley, Lord Ward, Sir Horace St. Paul, and other owners of mineral property in the district of South Staffordshire, to solicit their aid in endeavouring to relieve the mineral property of the district, by taking measures and effective steps to prevent the heavy imposts and charges with which the products of South Staffordshire are burthened in passing to the midland counties and some of the principal parts of the kingdom.

7. That this meeting is now adjourned, subject to the call of the committee, who are requested to publish the proceedings of the day in such manner as they may think proper.

The chairman having left the chair, and W. Bagnall, Esq., being called to the same,

Resolved—That the cordial thanks of this meeting be given to the chairman, for his able and impartial conduct in the same, and for the interest he has taken in the leaves in the welfare of this district.

Royal Oak Inn, Dudley Port, Tipton, Aug. 14. 23

WANTED, AN AGENCY in the IRON TRADE, by a MERCHANT, who has an OFFICE in a central part of the CITY. Satisfactory reference as the responsibility of the party will be given.—Address, "P. Q." care of Messrs. Stoddart and Brown, 180, Leadenhall street, London. 24

BRITISH AMERICA.—HER MAJESTY'S PROVINCE OF NEW BRUNSWICK.—TO EMIGRANTS.—The NEW BRUNSWICK AND NOVA SCOTIA LAND COMPANY, empowered by Royal Charter and Act of Parliament, have resolved to SELL PORTIONS of their LANDS, during this and the next season, on the following terms, for lots of 100 acres each—viz., all to be paid down.

£1	to be paid on or before 1st December, in the third year.		
£1	"	same	to the fourth year.
£1	"	same	to the fifth year.
£1	"	same	to the sixth year.
£1	"	same	to the seventh year.
£1	"	same	to the eighth year.
£1	"	same	to the ninth year.
£1	"	same	to the tenth year.
£1	"	same	to the eleventh year.

Timber also standing, without any charge for interest.

The territory belonging to the company is upwards of half a million acres, situate in her Majesty's province of New Brunswick, between the Bays of John and Miramichi. Several other rivers run through the tract, on one of which, the Southwest, is situate the company's principal town and settlement of Stanley. There is a church, school house, and mills and saw mills, and many houses belonging to resident settlers. The chief commissioner and the company's commissioner are at Stanley, and there is also a resident surgeon.

The passage from the chief port in the province (St. John) to the company's town of Stanley may be made in twenty four hours, at a very moderate expense.

For further particulars apply (if by letter, post paid), to the secretary, Cornhill street, London.—London, June 18. 25

SOUTH METROPOLITAN PURE WATER COMPANY.

Capital £500,000, in 20,000 shares of £25 each.

Deposit £10 per share.

PROVISIONAL COMMITTEE.

(With the Act of Parliament in obtained).

ROBERT STOCKLEY, Esq., Charing cross.
THOMAS GOODRICH, Esq., Lambeth.
HENRY PRETTY, Esq., Borough Road.
Secretary—Mr. James Baxter, the Grove, Camberwell.

The company is established to bring the waters of the Wandle to the supply of the southern districts of the metropolis.

The great advantages of this pure supply will be attained without injury to the manufactories of others on the Wandle, by the consumption of property along the course of the stream, into which all the impurities of present fouling there are into the Wandle will be discharged and contained directly into the Thames. The supply, also rendered particularly pure, will be taken under the present high protection of the public commissioners on the Wandle, as at present of the water of the Wandle.

The deposits, payable at the time of allotment, will be received to the extent of the working and call for ordinary purposes, but no further call will be made without due notice, and the allotment will be subject to forfeiture on non-payment of calls, with every indemnification, and to transfer of the shares, to whom applications for shares should be made at the head office.

FORM OF APPLICATION.

To the Provisional Committee of the South Metropolitan Pure Water Company.

Gentlemen,—I request you to allot me shares in your proposed undertaking; I will accept the same, or any less number, and pay the deposit thereon, and the necessary calls thereupon, and other requisites when required.—Dated

Signature

Residence 26

ON THE CHANGES PRODUCED IN ATMOSPHERIC AIR BY HEAT, COMBUSTION, AND RESPIRATION.

Mr. C. Hood, in his *Practical Treatise on Warming and Ventilating Dwelling-houses by Hot Water*, a work which we noticed in our last Number, treats upon the above subject in a very able manner, and clearly shows the great importance of proper ventilation, particularly in crowded rooms, and a consequent supply of pure air. Few persons have any notion of the vast consequences which result from impure air, and how seriously the duration of human life is affected by want of proper attention to the subject. The powerful effects which are produced on the animal functions by certain deleterious gases are very imperfectly known, as they are generally found to be diluted a great deal in order their action slow, and almost imperceptible; but in the events of their real nature and influence, we should see their effects in a more concentrated form. Dr. Christison, in his work on poisons, gives a description of the effects of the gases from the fumes of charcoal on Paris to those who inhale them. Often the individual perishes in a moment; his head and arms fall, and the body is deprived at once, from the instant loss of all muscular power. If death does not immediately ensue, when he recovers from the first effects, he is affected with pains in the head, nausea, fainting fits, severe pains in the stomach and limbs, and constriction of the throat; the face is pale, the pupil of the eye dilated and motionless, the mouth filled with white or bloody froth, the respiration is unavailable, pulsation of the heart irregular, the skin cold—until at length asphyxia and death terminate the suffering scene. The gases which produce these effects are combinations of ammonia, sulphuretted hydrogen, and nitrogen; and all these gases are to be found in the contaminated air of close ill ventilated rooms, though, of course, in small quantities.

The effects produced on the hygrometric condition of the air by various modes of artificial heat are of much importance. Dr. Ure has described the effects produced upon a great many gentlemen in the Long Room at the Custom House, arising from the use of powerful hot air or stoves for heating it. They were all affected with the same sensations and complaints; fullness of the head, flushings of the countenance, frequent confusion of ideas, giddiness and languor of the extremities, feeble pulse, and other unpleasant sensations. The stoves were frequently red hot; the air passing over them was sometimes heated to 110°, and was thus rendered intensely dry; animal and vegetable matters floating in the air were decomposed, and imparted a disagreeable smell to the atmosphere—and so pernicious was the apparatus, that it was obliged to be removed, and a different mode of heating adopted. Schools heated in the same manner have been found equally pernicious; the children would drop off their seats in fainting fits—and the usher of one which the author visited, a strong healthy man, fainted away in the school room, and it was with much difficulty he was restored. The desiccating power of air increases with its temperature to a great extent, and, when heated artificially without being in contact with water, it is prevented from acquiring an additional quantity of vapour, and it then possesses a harsh and arid feel. It rapidly absorbs moisture from the skin and lungs of persons exposed to its influence—and the evaporation, by its refrigerating effects, contracts the blood vessels at the surface, while other parts, not being exposed to this influence, become in consequence overcharged with the fluids, which are expelled from the extremities. The most healthy state of the atmosphere will be obtained when the dew point of the air is not less than 10° or more than 20° Fahrenheit below that the temperature of the room; when these limits are exceeded, the air will be either too dry or too damp for healthy or agreeable respiration.

The decrease of consumption of oxygen when a highly heated atmosphere is breathed, is another circumstance which exerts considerable influence on health; the blood is not so thoroughly decarbonized as when a colder atmosphere is breathed—and this acting on the nervous system, affects the animal functions, as well as the mental faculties. In winter, fully one-eighth more oxygen is consumed than in summer, during the same period. The contamination of the air produced by respiration, and by artificial heat and combustion, is very considerable; while spreading as are the consequences of the mutual influences of animals, the effects produced by the contaminations of the air from respiration are scarcely less extensive, though less capable of being conclusively determined—and, as the progress of civilization causes larger numbers of persons to congregate together, the necessity of attending to these effects becomes continually of greater importance.

Carbonization of the air is produced not only by respiration, but by animal exhalations, which are given off by both lungs and skin; that which is produced by respiration is chiefly carbonic acid gas. The quantity of air admitted into the lungs varies in different individuals, and even in the same individual at different times, being influenced by the relative amount of exertion or repose; great differences has existed in the calculations, but it is generally estimated that about 200 cubic inches enter the lungs per minute, under ordinary circumstances—and this air, after passing through the lungs, returns charged with carbonic acid gas and vapour of water. Where the lungs are not sufficiently supplied with oxygen, asphyxiation ensues to be performed, and the arterial blood, retaining the dark colour of venous blood, circulates in this state through the system. It has been proved by experiments, that when venous or dark coloured blood is injected into the brain through the carotid artery, its functions are immediately disturbed, and in a very short time ceases, the heart leaves its motion, and death speedily follows—then, when the lungs receive impure air, imperfectly oxygenated blood is circulated through the brain, producing a cessation of its functions, respiration is immediately affected, and the heart ceases to act; yet, after the brain has ceased to act, if an artificial respiration of pure air is produced and continued for a short time, the functions will be restored, and the animal ultimately recovers. The effects so speedily experienced by some persons in close and ill ventilated rooms are by these experiments easily accounted for; headache is usually the first sensation of uneasiness which is experienced, and the succeeding symptoms of languor, uneasy respiration, faintness, and ejaculations, are all clearly referable to the same cause, and always result from breathing any considerable quantity of carbonic acid gas.

These are always suspended in the air particles of portions of animal and vegetable matter—many of these are easily decomposed by heat, and are resolved into the various gases; to this is mainly attributable the unpleasant smell produced by several modes of warming buildings by highly heated metallic surfaces. All the different descriptions of hot air stoves are more or less liable to these objections, to also the high pressure system of hot water, and still more the parts of hot air furnaces. With respect to the quantity of air required to be changed by ventilation, in order to render the deteriorated atmosphere fit for respiration, it has by various persons been differently estimated. Dr. Hood considers that at least ten cubic feet per minute should be allowed for each person; and in some of his experiments in the Houses of Commons, thirty feet, and even sixty feet, have been allowed.

We will conclude this paper with an extract from a lecture of M. Dumas, on the "Chemical Relation of Organized Beings," in which he beautifully describes the processes through which the atmosphere alternately supplies vitality to animals and plants. He says, "We have proved, in fact, that animals contribute, in a chemical point of view, a vital apparatus for combustion, by means of which latent carbon incessantly returns to the atmosphere under the form of carbonic acid, in which hydrogen, burnt without ceasing, on its part incessantly engenders water—whence, in fine, fire ever is incessantly restored to respiration, and ever, in the state of cycle of conversion, by the latter; thus, from the animal kingdom, considered collectively, constantly escape carbonic acid, water in the state of vapour, azote, and cycle of ammonia—results subsistence, and live in number, the formation of which is closely connected with the history of the air itself. Have we not, on the other hand, proved that plants in their normal life, decompose carbonic acid, that the property of living in carbon and of disengaging its oxygen; that they decompose water, to combine with its hydrogen, and to disengage, also, its oxygen; that, in fine, they sometimes borrow more directly from the air, and sometimes indirectly from the cycle of ammonium, or from whole soil—their nourishment? In the animal kingdom nevertheless we measure expressly the consuming, the organic kingdom is the rare constitutive or reparative apparatus of the combustible which exhaust carbonic acid yields the carbon, reduced water the hydrogen, and in which, also, reduced cycle of ammonium and whole solid yield their substances or their azote. In animals, then, continually produces carbonic acid, water, cycle of ammonium—plants incessantly consume carbonic acid, water, cycle of ammonium with. What the one class of beings gives to the air, the others take back from it; so that, in take these facts at the different point of view of successive phases, we must add, that as to their body organic elements, plants and animals spring from air—are nothing but condensed air."

PHOSPHORIC ACID FROM ANIMAL AND BONES AS FATTENING FOOD.—A communication has been made to the Academy of Sciences, by M. Chevreul (Geneva), on the subject, vulgarly called Boiling Meat. He states that all the nitrogen which here exists in the terrestrial atmosphere have their origin in the animal kingdom. M. Dumas was made to adopt the dissolution, sometimes, and changes of colour of the living meat, we shall be able to predict with certainty the wind that will prevail, and the rain, thunder, &c., that will take place in the following day." M. Gannal declared that he has for several months passed entire nights in observing the living stars, and that always, on moving at which it had to be followed by M. Arago, at the observatory, his prediction for the day, without having been seen to come. The name of M. Arago having been thus mentioned, we must be permitted to express our surprise at the silence of that gentleman on the subject. We owe it to the public to communicate or confirm the discoveries of M. Gannal, and, with permission, of course, to state what are the rights by which one knowledge, in particular, if true, is appropriated and recognized, is obtained.

PHOSPHORESCENCE OF THE SEA.—M. Chevreul, jun., has proposed the solution, shown that this substance, which is spontaneously inflammable, owes that property to the presence of a small quantity of the vapour of a liquid hydrocarbon phosphide, which is also spontaneously inflammable.

SOUTH AUSTRALIA.

In the present enlightened state of society, and the increase of general knowledge among all classes of the community, it is most surprising that so much ignorance should prevail as to the situation, extent, and capabilities of many of our colonies, and this remark applies, perhaps, most particularly to many Australasian colonies; as nothing is more common than to hear (even in other respects) intelligent people confound South Australia with the Western colony, New South Wales, Van Diemen's Land, and even New Zealand. To disseminate among the community some correct ideas of one of these colonies, a number of influential gentlemen who are interested in the flourishing province of South Australia, have formed themselves into a committee, for the purpose of publishing such authentic information as may, from time to time, be obtained from the colony; we have received the first production of the efforts of this committee, an abstract of which we now lay before our readers:—

The largest island in the world is Australasia, or New Holland; it extends from the 113° to the 153° of east longitude, and from the 11° to the 39° of south latitude; or, in other words, it measures about 2600 miles from east to west, and about 2000 miles from north to south. The colony of New South Wales was founded in 1788, on the eastern shores of that country, the capital of which is Sydney. To the southward of Australia, lies the island of Van Diemen's Land. About 500 miles to the southward of Sydney is Port Phillip, situate on the south-east part of Australasia, the capital of which is Melbourne. It was formerly a mere dependence of New South Wales; it is now under the Government of a Superintendent appointed by the Crown, and of local courts. Adjoining the Port Phillip district is the colony of South Australia, extending from the 129° to the 141° of east longitude, and from the 26° to the 39° of south latitude. The superficies of the country contains about 300,000 square miles, or 192,000,000 acres, being about three times as large as Great Britain. The present settlements, however, occupy only a very small portion of these vast limits, and are bounded (with the exception of a few settlements) by Gulf St. Vincent on the west, the white stream of the Murray on the east, the sea coast on the south, and extending northward about 150 miles towards the head of the Murray, in the direction of the back settlements of the colony of New South Wales. The capital of South Australia is *Adelaide*. The principal harbour is Port Adelaide—about seven miles from the capital, situate on a large creek; described by Capt. Stokes, R.N., of her Majesty's surveying ship, the *Beagle*, as a really natural dock. The distance, by sea, from Port Adelaide to Port Phillip, is between 500 and 600 miles; to Launceston, about 700; to Hobart Town, about 800; to Sydney, between 1,100 and 1,200; about the same to Swan River, or Western Australia; and to New Zealand upwards of 2000 miles. And yet, South Australia is confounded with all these different colonies, by many persons, who talk about our Australasian colonies.

Great disadvantages were experienced by the first settlers, in consequence of the great delays which took place in obtaining possession of their lands; up to the present time, however, upwards of 200,000 acres have been surveyed, in addition to those already selected, and are now open for purchase; quarterly sales by auction take place in the colony, and, during other periods, all lands but sold by auction are open for purchase. On the 16th February last some sharp competition took place; a section of eighty acres, known to contain a valuable copper lode, was knocked down for 1450*l.*, and another section of the same extent, containing a vein of lead ore, realized 321*l.*, and the purchasers are expected very soon to repay themselves for their outlay.

The increase in the number of acres of land under cultivation in three years is, perhaps, unprecedented; in 1840 there were but 2035 acres, while last year there were 22,000 acres cultivated by 1,800 proprietors or tenants. An exhibition of agricultural and horticultural productions took place on the 14th of February last, under the patronage of the Governor, and, considering the comparative infancy of the colony, the display was not only gratifying, but really wonderful. A splendid pavilion, 150 ft. in length, was erected for the occasion, and nearly 1200 persons paid for admission, at 1*s.* each—56*l.* 11*s.* having been taken at the doors. Twenty-seven samples of wheat were shown, the majority remarkably good; several that obtained no prize weighed upwards of 65 lbs. per bushel; and two prizes were given for wheat, which weighed 66 lbs. 9 oz. per bushel; the prize barley weighed 57 lbs. 4 oz., and oats 46 lbs. 6 oz. Samples of all the prize grains have been received by the directors of the SOUTH AUSTRALIAN COMPANY, and may be seen at their offices in New Broad-street. Prizes were also given for flour, malt, butter, and every description of farming and garden produce, wool, bacon, candles, soap, starch, leather, ale, honey, castor oil (until drawn), a hearth rug from native wool, and a variety of other products, among which was an ingenious machine, by which, *after the corn is cut, the ear can be separated from the stalk, and the grain from the husk, in the field*, which may be thus at once carried to the mill, and ground. The number of farms and lands in the various districts, on the 31st of December, 1843, were—sheep, 402,197; cattle, 30,915; horses, 1693; pigs, 6684; and goats, 4000. The decrease of imported goods into the colony has, in addition to the increased cultivation of land, proved its rapid success; during the three last quarters of 1841, the value of the imports was 289,925*l.*, while, during the whole of 1843, they amounted to only 93,145*l.*, and the exports from the colony have increased from 35,000*l.* in 1838, to 64,176*l.* 17*s.* 9*d.* in 1843. That was the amount in 1843, according to the official return made by the Collector of Customs, but in that estimate, the wool exported was valued at 9*d.* per lb.; whereas it realized, in wet proceeds, 50 per cent. more, so that the real value of the exports in 1843 was very little less than the amount of the imports—a very healthy state of matters in so young a colony. Manufactures of all kinds have made rapid progress in South Australia—a fact highly creditable to the colonists; there were in 1843 one manufactory for snuff and tobacco, four for soap and candles, one for starch, six tanneries, three for making machinery, nine breweries, one for bricks, one pottery, sixteen flour-mills, one brass and two iron foundries; the above mills supply ample means for grinding all the produce of the colony, at a charge of 1*s.* per bushel. The amount of population in the colony is now, including Adelaide and its suburban districts, as well as the country districts—male adults, 5519; female adults, 3991; male children, 3626; female children, 3323—making a total of 16,459 persons.

In this favourite colony the prices of provisions are exceedingly low, while the rates of wages for labour enable all the necessaries, and even comforts, of life to be obtained. Bread is from 6*d.* to 8*d.* per 4 lbs.; beef and mutton, 2½*d.* to 3*d.* per lb.; lamb, 1½*d.* to 2½*d.*; veal and pork, 6*d.* to 7*d.*; currants, 1*d.*; fresh butter, 9*d.* to 1*s.*; salt, 5*d.*; raw milk, 2*d.* per quart; potatoes, 2*l.* to 3*l.* per ton; onions, 2*l.* to 3*l.* per ton; and fruits and vegetables of every description exceedingly moderate. With respect to wages, a carpenter can earn from 8*s.* to 10*s.* 6*d.* per day; smiths, the same; bricklayers and masons, 8*s.* 6*d.* to 9*s.*; labourers, 3*s.* 6*d.* to 4*s.*; farm servants, with rations, 10*s.* to 12*s.* per week; coopers, 10*s.* to 12*s.* per week; clerks, with rations, 3*s.* or 4*s.* to 5*s.* per day—and the ration list in this country is, 10 lbs. sugar 2 lbs., flour 14 lbs., meat 14 lbs. per week. We hear the face of agricultural labourers in England will bear but poor comparison with this.

BOTANICAL WEALTH.—On this subject, although sanguine expectations had been indulged in by the colonists, their superabundance were received in this country with strong misgivings; recent intelligence has, however, confirmed their expectations. The competition at the public sale of seeds before-mentioned shows the value attached to the vast dimensions of mineral wealth. Several other lodes of lead ore have been discovered, and are in the course of being worked advantageously. One of copper ore also has been discovered, about sixty-five miles from Adelaide, from which ten or twelve tons have been received in London per the *Francis Spaight*. On opening the lode it was found to be a perfect mass of ore, seven feet feet in breadth, and on sinking thirteen feet, the workmen raised no less than ten tons of ore, a small part of which contained not less than 70 per cent. of the pure metal. By blasting ores, they had turn four tons of ore, which they raised in two days. The proprietors have lately opened another lode, which they are also working, and have altogether eight miners employed. It is a singular feature in all South Australian mines, hitherto discovered, that their lodes are found within a few feet of the surface, and it proved they are at such elevations, that it will be a long time before machinery is required to pump off the water. It is supposed, on what is considered a very moderate computation, that additional exports from the colony will be made of copper and lead ore, to the value of 50,000*l.* per annum.

The diffusion of information like this must not only tend to the advancement of the colony, but must be productive of beneficiable benefit to the interested proprietors. Were intelligent facts of this position and resources of all our colonies continuously published, it would direct time in the stream, guide him in the purchase of his investments for his accommodation, and prevent those rashful ungrain expenditure, and consequent disappointments, which have followed to so painful an extent almost all colonization from the country. Our correspondent, we see only say, we shall do our best to second the efforts of this very useful committee, and shall, on receiving from time any additional information, launch the same, or an abstract, for the general information of the readers.

A TEMPERANCE CHURCH.—Near Bilton in Rugby a beautiful church has recently been built, entirely of brick—bricks, mortar, timber, and tiles, all of the same material. A correspondent says:—"The church is situated about a mile from Bilton, near the Brough (called the Mill)." It is built of a kind of fire clay, found near the spot, between the beds of coal, in Mrs. Fletcher's mines; it is surrounded by a great premium, and then burnt. The colour is rather good—a kind of brown. The situation, too, is very pretty. The architecture (by Sharp, of Lancaster) is very florid Gothic—too much so, perhaps, for the form of the edifice, which appears to be a much later date than Richard III.; but I speak doubtingly. The interior is prepossessing—the roof of dark stained oak; the floor is of tiles, tinted with numbers of streaks; the steps of the communion somewhere else; and all other matters to match. The seats are open, and formed into pews. The building, which, I believe, is not yet dedicated, boast a lofty spire in the Gothic style."—*Liverpool Mercury.*

COAL MINES OF FRANCE.

A geological survey of France has been in progress for nearly twenty years, under the care of two very able men (Messrs. De Beaumont and Dufrenoy), and was completed three or four years ago. These able and experienced observers examined the whole surface of the country, and the large geological map which is the fruit of their labours is now in the hands of the public. Their *Exploration de la Carte Geologique* will contain a complete account of the geology of the country; and the first volume, which was published in 1841, describes every portion of the *terrain houiller*, or coal formation, in great detail. Minute patches of that formation may have been overlooked, but we may be certain that no coal-field worthy of notice for extent can have escaped them. Wherever, therefore, desires full and authentic information respecting the coal mines of France, will find it in that volume, which is accompanied with a reduced geographical map of the kingdom (twenty-one inches square), beautifully and carefully coloured. A simple inspection of that map, and a similar map of England, will satisfy any one of the comparatively small extent of coal in France. This is more distinctly set forth, however, in the seventh chapter of the volume, from which we borrow the following details:—

The coal-fields of Scotland and England are estimated to occupy a twenty-fifth part of the surface.—The coal fields of France occupy only a two-hundredth part of the surface (*seulement un deux centieme.*)

The country in Europe best supplied with coal, next to Britain, is Belgium, whose coal-fields occupy a twenty-fourth part of the surface.

In France, coal of some description is widely diffused, being found in thirty-three out of the eighty-six departments; but most of the deposits are of trifling extent, and in many of them the coal is poor or bad in quality.

The coal basins of France have an extent of ..... 692,850 English acres.
The coal basins of Britain 4,000,000

All the coal mines of France produced only 29,447,000 metrical quintals of coal, or 2,900,000 tons, in 1839—which is about a sixth or seventh part of the coal-put of those of Britain. Of this quantity, 11,042,000 metrical quintals, or more than one-third, was furnished by the mines of St. Etienne, situated thirty-five miles south-west from Lyons. These mines are described as "the most important in the kingdom, from their extent, their position, and the excellent quality of the coal." They extend over 66,000 acres, and communicate with Lyons and the Rhone by railway; yet, when we visited this part of France in 1839, we found that the steamers plying between Lyons and Avignon used English coal—which, we are told, cost 50*s.* per ton. The coal of St. Etienne must be worked under unfavourable circumstances, when English coal competes with it at such a price.

The French coal mines, when compared with those of England, lie under other disadvantages besides those already mentioned. Their situation is generally inland; and, of course, they are deficient in the means of cheap conveyance, which the sea affords. They are rarely accompanied with the iron ore, which in England so much increases their value for manufacturing purposes, and so rarely with the limestone, which serves as a flux to melt it.

SOUTH LONDON POLYTECHNIC INSTITUTION.

We briefly noticed in our last Number that the formation of an institution of a thoroughly scientific character was in contemplation on the Surrey side of the Thames, to afford the means of rational recreation and improvement to the larger portion of a population of 1,500,000, in whose neighbourhood there is at present no establishment of the kind. The site for the erection of the necessary buildings is proposed to be the old Vauxhall Gardens, and they would thus be restored to the public, certainly under a new feature—but, instead of the theatrical glitter of former days, it would be under circumstances that would place them among those valuable institutions which tend to the advancement of civilization, incite investigation into the hidden wonders of nature, and, while collecting data for the guidance of the experienced, train up the infant mind in those sublime truths which must be acquired to form the groundwork of all future excellence.

In common with all admirers of scientific pursuits, we hail this attempt to establish a South London Polytechnic Institution with much pleasure, satisfied that if the first intentions of the committee are carried out with spirit, and conducted in a manner to establish it legitimately as what it professes to be—a really scientific institution—not only will a great public good be accomplished, but a return will be secured which will amply repay for the capital invested. It is intended to form a water ball and pier on the piece of waste ground by the bridge, for the landing of passengers, from whence, by a tunnel beneath the road, lighted by a Drummond light, they can at once reach the gardens; these will, in some measure, assimilate to the "*Jardin des Plantes*," in Paris, and will contain specimens of every branch in the whole range of science—optics, music, literature, chemistry, mathematics, hydraulics, the active principles of mechanical motion, &c.; and, as we noticed in our last Number, that during the exhibition a general system of manufactures of various descriptions was to be kept in operation, the exposition of elaborate and useful trades will offer a continuous course of instruction. Offices will be established of easy access for chemical assay and test, giving opportunities for the detection of adulteration in all articles of commerce—a feature alone of immense advantage to the community. R. Bazil, Esq., the talented contractor of Sir J. Wyatville, at Windsor Castle, is, we understand, the architect, and who has already produced some magnificent plans for the buildings. The committee, though not yet complete, is daily receiving additions to its ranks. The proposed capital is 40,000*l.*, in 1600 shares of 25*l.* each—and from the support the proposed institution has received from its first promulgating by practical men, and individuals of every class, it is confidently anticipated that the intentions of its promoters will be carried out to the fullest extent. The preliminary arrangements, we may add, appear to be progressing satisfactorily under the superintendence of Mr. E. J. Oxlee, who we should imagine well qualified for the task, from his previous occupation as curator to the Royal Adelaide Gallery.

POLYTECHNIC INSTITUTION.—One of the most important subjects connected with the application of chemical science to the art of war has been during the past week, and will be, during several weeks to come, illustrated at this popular institution by Professor Ryan—we allude to the invention and claims of Capt. Warner. Our readers are familiar with the repeated assertions of what can be effected by chemical agency and explosive compounds, and Dr. Ryan has been lecturing on this branch of science; and, having at his disposal the whole of the apparatus of the splendid laboratory of the Polytechnic Institution, he has availed himself of the means thus afforded him to test by experiment the feasibility and practicalness of the invention. We are not passing an opinion, one way or another, upon the invention; but we are recommending the public to go and hear the lectures, and form their own unbiassed opinion. The professor, in the course of his experiments, not only enters very fully into the whole doctrine bearing upon the combination of explosive and combustible compositions, but shows in what way they have been applied, and how the modern discoveries and an improved acquaintance with the laws of projection are immediately connected with the art of gunnery renders them still more applicable to the destruction of ships or forts—and, by a great exhibition of practical experiments, brings home his subject to all capacities, and unless every soldier to a certain extent be able and competent military or naval critic. These lectures have met with the encouragement they deserve; and it augurs well for the vigilance and good sense of the general community that their patronage has been most liberal.

THE NEW SUBSCRIPTION PROJECTILE.—Captain Warner is at length before the world in a position, as regards his invention, which cannot be mistaken. In a letter in *The Times*, of Wednesday last, he says—"But I will here, in the face of the world—for what is published by the press of England is read by the whole world—and that there may be no further mistake, misunderstanding, or misapprehension about the matter, repeat the offer I have made the C. Napier, in terms of his own dictation, to submit to her Majesty's Government:—'If the Government will conduct a line of battle ship at the back of the Goodwin Sands, out of the ship track, so that no harm may happen to passing vessels, I will, from an inland position, destroy her at a distance of five miles. I am willing to take on board the vessel in which I operate, General Sir George Murray, Captain Lord Viscount Ingestre, R.N., Captain Dickinson, R.N., and Captain Hoskinson, R.N., who shall have every opportunity of inspecting my mode of operation, and satisfying themselves that on this occasion I use a projectile. The final liberality of my friends enables me to exhibit this experiment without asking the Government for a shilling towards it. If I fail, I am to receive nothing but ridicule—of which I have received quite enough to satisfy any reasonable man already—but, previously, I require a guarantee from her Majesty's Government for its purchase of my secret for 200,000*l.*, in the event of my destroying the ship and satisfying the four above-named officers of the feasibility and practicability of my plans.' Lastly, I invite Sir Howard Douglas, Sir Byam Martin, Sir George Cockburn, Colonel Chesney, R.A., and Commander Colby, R.N., to attend in another vessel and watch the proceedings."

CHAPMAN'S ROTARY PUMP.—One of these pumps was exhibited in Birmingham on Tuesday last. It is on invention intended principally for washing the exteriors of buildings, windows, carriages, &c., and to be used in ships—but also to be called into requisition in cases of fire; its chief merit appears to be, the establishment of a rotary motion for a reciprocating action, by which are saved the loss of power attending the latter, and the friction produced by cross-motion—and the liability to be disabled by the casual introduction of substances calculated to impede or prevent the action is suppressed. The machine was tested on Tuesday only as regarded its power of throwing water, which it most fairly rather plentifully against the windows and doors of the Queen's College; and although the conditions of the experiment were under the disadvantage of a temporary closet for the occasion, the machine may still be beholden called into requisition until the larger fire-engines shall

PROCEEDINGS OF PUBLIC COMPANIES.

COPIAPO MINING COMPANY.

A special general meeting of the proprietors of this company was held at the office, Austinfriars, on Wednesday, the 14th inst., H. HARMAN, Esq., in the chair.—The notice convening the meeting having been read, the CHAIRMAN said, the present meeting was called for the purpose of electing two directors, in the room of G. L. Hollingsworth and T. Masterman, Esqs., and one auditor, in the room of J. Labouchere, Esq., who go out of office by rotation, but who, being eligible for re-election, offered themselves accordingly. The directors had thought it advisable to make an alteration in the fourth clause of the rules and regulations of the company, by which ten shareholders should, in future, be considered sufficient to constitute a meeting, and it would be for the proprietors, on that occasion, to confirm such alteration.

It was then moved from the chair, that G. L. Hollingsworth and T. Masterman, Esqs., be re-elected as directors, and J. Labouchere, Esq., an auditor, which, having been seconded, was carried unanimously.

It was then moved and seconded—"That the alteration by the directors of the fourth clause in the regulations of the company, whereby, at all future meetings of shareholders, ten such shareholders being present shall be deemed sufficient to constitute a meeting;" which resolution having been unanimously passed, thanks were voted to the chairman, and the meeting separated.

CROYDON AND EPSOM RAILWAY.

A special meeting of this company was held in one of the rooms at the London station, on Thursday, the 22d instant, for the purpose of agreeing to a sale of this line to the London and Croydon Railway Company.—The chair having been taken by W. A. WILKINSON, Esq., the SOLICITOR (Mr. Burchell) read the clause authorising the sale, when the resolution was read to the meeting, which was adopted unanimously.—There were about twenty proprietors, who held 200 shares, amounting to about 20001., which constituted the meeting.

LONDON AND CROYDON RAILWAY.

An extraordinary general meeting of this company took place in the board room at the joint station, London Bridge, on Thursday, the 22d instant, and was numerously attended.—The chair was taken by W. A. WILKINSON, Esq., when Mr. YOUNG (the secretary) read the notice convening the meeting, which was for the purpose of raising further capital for the Croydon Railway; also, for considering and agreeing upon the purchase of the Croydon and Epsom line, and for raising the sum necessary for that purpose, and for working the line on the atmospheric principle.

The CHAIRMAN commenced by alluding to the violent opposition they had met with from the South-Western Company, which, by the great ability of their counsel, he was happy to say had proved nugatory. He then alluded to some observations made by him at the last meeting, respecting the statements of Mr. R. Stephenson, for which he had been called to account in not very courteous terms, so that he thought the best justification would be to read Mr. Stephenson's report, which was to the effect, that the Croydon was impracticable, and that, ergo, the Brighton could not be carried out, because it was intended to make use of the Croydon line. (Hear, hear.) He would now come to the money required, which the Croydon proprietors might think a very large sum; but, when they considered the very large return they had every reason to expect, he thought they would not complain of their acting all the money for their purposes. For the purchase of the Croydon and Epsom line, to be made on the atmospheric principle, they would require a sum of 200,000l., and 130,000l. for the purpose of making another line to carry the atmospheric line up to London-bridge; these sums, together, would make 330,000l. From the amount of traffic submitted to the House of Lords, they found the returns on the Croydon and Epsom line would be 16,000l. per annum gross receipts; and, looking at the large proportion of this which must come over the Croydon line, there was no doubt but there would be a clear 10 per cent. for those who advanced this 200,000l. (Hear, hear.) As to the 130,000l., he had before stated, that by an outlay of that money they would save 2000l. a year, and get back besides all the interest on the outlay, supposing it to be at 4 per cent. He was sorry to say that there was still a deficiency on the Croydon account, from the various land slips, the necessity of buying a quantity of land contiguous to the line, &c., which sum exceeded 15,000l., in addition to which the chairman mentioned other large items—making the total sum wanted about 37,000l., which he hoped would be the limit to the Croydon capital account. With the prospect before them of so large a return from the Epsom traffic, he thought there would not be any great difficulty in their agreeing to the various sums required. With respect to the Chatham and Portsmouth Railway, he was of opinion that it ought to have every facility from the Croydon Company; he hoped by their next meeting to present to them such means as would tend to bring about that desirable object. As to the success of the atmospheric principle, they had the evidence of Mr. Cubitt's report, who, with a portion of the board, had been over to inspect the Dalkey line, and was completely satisfied of its cheapness and applicability. In conclusion, he said that in all they would require a sum of 450,000l., for which the directors did not think it advisable to trouble the Croydon proprietors to increase their capital, as that it was proposed to create new shares, or preference shares, to bear interest at 5 per cent., at the price of 5l. per share, the holders having a right to convert three of such shares into one Croydon share. This scheme he hoped would be satisfactory to the proprietors.—Mr. BURCHELL (the solicitor) read the clause respecting the Croydon and Epsom Railway.—The CHAIRMAN read the resolution passed at the Epsom meeting previously.—The resolution for the purchase of the Croydon and Epsom line was then agreed to unanimously; and that for raising 44,000 shares, at 5l. each, to be termed third shares, bearing interest at 5 per cent., which was passed without a dissentient.—Mr. J. LOVY asked if they would be obliged to register the scrip shares?—The CHAIRMAN gave to understand that they must be brought to the office for the purpose of being registered.—Mr. LOVE thought that any surplus shares should be sold publicly, for he knew of another company where a large number of shares were held back unknown to the shareholders.—Mr. LOVY said what was over should be offered to the proprietors.—The CHAIRMAN said gentlemen would have their fair proportion, and he did not think there would be many over, but, in that case, it had better be left to the discretion of the directors, as to their disposal.

Mr. BAIRDS (a director) thought the carrying would be so small that it would be impossible to distribute them amongst the proprietors.

In answer to a proprietor, the CHAIRMAN said the reduction of toll to 1½d. on the part of the Greenwich Company, had produced them 130 per cent. more than the toll of 4½d. produced. (Hear, hear.)—Mr. LOVE asked whether it was true that the Dalkey line had been stopped last week?—Mr. BAIRDS said it had been stopped merely to do some repairs to the engines, which was caused from their having but one steam-engine. Since that line had been opened in the month of March (he was informed), the returns had exceeded the expenditure by the amount of the interest on the whole amount of the outlay, which was for only a period of five months, leaving the remaining seven months a clear profit. The outlay was 33,000l.; the distance was a mile and three-quarters; and the fares 3d. and 2d. a passenger. The tolls on this line were now increased from forty to fifty-six.—In reply to a proprietor, the CHAIRMAN said that the South-Eastern and the Brighton Companies had applied to be admitted to the Bricklayers' Arms terminus, but the terms had not yet been settled.

After some words from Mr. M'Leavie and others, Mr. ALLARD moved a vote of thanks to the chairman and directors.—Mr. J. LOVY seconded the motion. He was not one that ever agreed that board where he thought they deserved it, and he would not be one to withhold the meed of praise when he found it was justifiable.—The resolution having been passed with applause, the CHAIRMAN returned thanks, and the meeting adjourned.

LONDON AND SOUTH-WESTERN RAILWAY.

The half-yearly meeting of this company was held, pursuant to notice, at the terminus, Nine Elms, Vauxhall, on Friday, the 23d inst., and was numerously attended.—The chair was taken by W. J. CHAPLIN, Esq., when

Mr. ALFRED MORGAN (the secretary) read the report of the directors, from which we take the following particulars:—"The directors are gratified in again being able to report a progressive increase in the traffic. The total receipts during the first six months of 1843, were 161,671l. 10s. 3d.; which shows for the six months ended 30th June last, increased to 170,402l. 4s. 6d.—exhibiting an increase of 8730l. 14s. 3d. The aggregate expenditure during the latter period is 84,870l. 19s. 6d., and the net revenue accordingly will show that the amount available for division amongst the proprietors is 85,531l. 5s. 3d., out of which the directors recommend the payment of a dividend greater by 3s. 6d. a share than that paid in September last, making the present dividend at the rate of 7l. 7s. 6d. a share (subject, as before, to income tax). This dividend will absorb 76,387l., and leave a balance of 9143l. 5s. 3d. to be carried over to the half account. Another important object of the directors has been to make such arrangements with England for the export and import trade of the ports in connection with this line, as will secure the ensuring interests of those ports to great themselves to the full extent of their admirable positions and other great facilities for trade, and the directors of the Southampton Dock Company, with commendable zeal, have not let time in other hands previously before the honourable court the terms which they were desirous to the adoption of Southampton as a port, of the working corresponding arrangements to meet its pending resolution. The directors have only to add, that they are still of opinion that the construction of a branch from this railway to Epsom, at the moderate expense which in conjunction with the directors and chairman of the company, will be a profitable and useful undertaking. Their attention has accordingly been turned towards the subject, and they have now before them their own plans for effecting the object, with the larger purpose of connecting this railway with the Brighton and South-Eastern lines, and with the facilities expected by the direction. The bill for constructing the branch to Salisbury has received the Royal Assent. The engineer has been instructed forthwith to prepare for putting the works under contract. In consequence of the rejection of the Epsom, and the passing of the Salisbury Bill, the scrip eighths created in pursuance of the resolutions of the special general meeting of the 30th December last, will be amalgamated into 6000 shares of 40l. each. The bill for improving the Nine Elms station, and extending the public accommodation there, and for authorising the conversion of the company's share capital and loans into a transferable stock, has since become law. The directors intend immediately to possess themselves of the land the company is empowered to take under this Act; and as the capital for purchasing it is required, the directors will create and dispose of for the benefit of the company, 250 shares of 50l. each, that number and amount of shares being equivalent to the 2000 scrip eighths which, according to the scheme laid before the proprietors at the special meeting of the 30th December last, were reserved for issue by the directors. The conversion of the company's capital into stock, will require the previous sanction of three-fifths of the proprietors present at a special meeting, and the directors will take early occasion to recommend its adoption. This bill originally contained powers for enabling the company to purchase or hire steam-packets to ply between Southampton and the continent; but because opposite notice of an intention to apply for such powers had not been given, the Standing Orders Committee of the House of Commons decided that such provisions must be struck out of the bill; this subject will, therefore, continue to engage the attention of the board. With reference to the two branch lines from this railway, for the construction of which powers were sought by independent companies in the present session, the directors have to congratulate the proprietors on the passing of that which authorises the branch to Guildford; which, when completed, cannot fail to be a useful tributary. They regret that similar success did not attend the application for the Newbury branch. It is now necessary to advert to the measures in contemplation, for extending the Brighton and Chichester line from Chichester to Portsmouth, and that which the board will recommend the proprietors to undertake in extension of the South-Western line from Fareham to Portsmouth and Chichester. The directors consider that the construction of such a line, by that company, would be most detrimental to the interests of this company, and they have, therefore, lost no time in commencing the survey of a line to Portsmouth and Chichester, by the construction of which the population and trade of Portsmouth will receive the greatest possible accommodation, by acquiring two complete lines of railway to London, and also a line along the coast as far as Hastings on the east, and Salisbury on the west. The proprietors will have observed in the public newspapers, accounts of an undertaking set on foot by parties of influence, for making a railway from Southampton, through the New Forest, and near the southern coast, to Dorchester and Weymouth. It is impossible not to regard such an enterprise with interest; but, since this plan was placed before the public, the directors have been invited to consider whether the same, and other objects, cannot be carried out with greater general benefit, by the extension of the Salisbury branch line, in the direction of Shaftesbury, Sherborne, and Yeovil, to the Great Western line at Taunton or Exeter, and by a southern branch from such extension, to Dorchester and Weymouth. When they shall be in possession of all the information necessary to guide their judgment, it will be the duty of the directors carefully to examine it, and to lay before the proprietors the result of their deliberations, with a recommendation as to the line of conduct which it will be prudent for this company to adopt. In anticipation that the Salisbury branch line must hereafter, under any circumstances, become one of an ordinary traffic, the directors recommend that it should be at once furnished with a double line of rails. Should the proprietors acquiesce in this view, it will become necessary to raise, and merely the amount of share capital authorised by the Salisbury Act (240,000l.), but also to take up on loan the sum which the company are thereby empowered to borrow (80,000l.), and having regard to the favourable terms on which such a loan could now be negotiated, the directors will submit a resolution to the proprietors, giving the necessary sanction to such a proceeding. The directors have only further to add, with respect to lines of railway adopting this undertaking, that much discussion has recently taken place with reference to the formation of a branch from this railway at Wandsworth, through Putney, Barnes, and Mortlake, to Richmond, in connection with an extension of the South-Western Railway from Nine Elms to the Hungerford and Waterloo-bridge. But the directors, whilst fully prepared to aid in the promotion of such an undertaking, if launched under satisfactory auspices, will also feel it their duty, for obvious reasons, to watch with extreme jealousy the proceedings of parties projecting a measure which, although it could, doubtless, be made most beneficial to this company, might also be so conducted as to lead to great inconvenience and annoyance. The directors cannot conclude their lengthened report without expressing their entire confidence in the general prospects of the undertaking, and assuring the proprietors that the line is in excellent order, and the working stock in the most efficient condition."

After the reading of the report, the CHAIRMAN entered into a very clever and elaborate speech, in which he pointed out the great advantages that would ensue from the adoption of the various recommendations of the directors in the above report, and hoped the proprietors would continue that confidence in the board which they had hitherto reposed. His speech, as well as the report, was received with much approbation.

Mr. MORGAN (the secretary) then read a series of resolutions (for which see advertisement), which were all adopted unanimously.

A vote of thanks to the chairman and directors, for their zeal and ability in the management of the affairs of the company, was then proposed by Mr. SNOW, and seconded by Mr. GILBERT, and was passed by acclamation, when the meeting separated.

BRISTOL AND EXETER RAILWAY.

The sixteenth half-yearly meeting of the proprietors of this company was held at the White Lion Hotel, Bristol, on Thursday, the 22d instant,

FREDERICK REYNOLDS, Esq. (chairman of the board of directors), in the chair.

After the advertisement calling the meeting had been read, the CHAIRMAN said, that he had the pleasure of congratulating the proprietors on the completion of the Bristol and Exeter line, thus bringing the two cities within three hours of each other; and, without doubt, the commercial and scientific advantages of both would be much promoted in consequence. He had repeatedly expressed an opinion, that the cost of the line would not exceed the amount authorised by Parliament to be raised; and he had now the pleasure of stating, that there would be a surplus. The only disputed account of importance had been settled by arbitration; and he did not anticipate any difficulty in settling every account before the next half-yearly meeting. The report referred to the necessity of adopting measures for supplying means for extending railway accommodation into and through Devonshire. As to railway speculation generally, he begged to say, that materials and labour were cheaper; and there was a general impression that in every part of the world this mode of communication must become universal. It was, therefore, necessary, in the case of the Bristol and Exeter Company, to proceed, however obstructed they might be by pecuniary difficulties, to make branches to the different districts, or leave the field to others. Other companies were on the alert, and it was therefore necessary for them to be equally on the watch, or that no time might be lost in the way of extending the line through a part of Somersetshire, and the possession of the advantages of a railway, to the coast of Devonshire; a special meeting, however, would be called, before practical measures were adopted. The inhabitants of Taunton were desirous of having a line; and Mr. Brunel was of opinion that it might be carried out at a small expense. As to the Temple Mead Station, the directors were in hopes that all long satisfactory and permanent arrangements would be made for the accommodation of the public; those arrangements, he hoped, would prove satisfactory to the public and to the proprietors.

The report, which was next read by the SECRETARY, congratulated the proprietors on the opening of their line to Exeter on the 1st of May last, terminating by more than a year the period stipulated with the Great Western Company. The amount of rent and others of toll, agreed by the Great Western Company to be due to the Bristol and Exeter Company, for the half-year ended on the 30th of June, is—

Rent of the Bristol and Exeter Railway, from Bristol to Bridgwater, from time, viz. 1st, 1843, to April 30, 1843—181 days, at 21,125l. a year	10,483	15 3
From Bridgwater to Exeter, from May 1, 1843, to June 30, 1843—61 days, at 7,042l. a year	2,874	5 4
	13,358	1 7
Share of toll on 131,602 passengers—4,382,433 miles travelled, at 2s. per mile	4,382	7 10
Goods and coal, 71,172 tons, 2 cwt. 2 qrs. 4 lbs.—780,777 miles, at 2s. per mile	780	15 1—5,163 12 11
Gross total of rent and share of toll		18,521 13 6

The gross earnings, calculated at the rate of 39,186l. 5s. 11d., are satisfactory, considering the short period during which the receipts for the different branch lines have been collected—especially when it is mentioned that there is the month of the least productive half of the year. The additional distance of the company on the lessons for next year will not fall short of 60 miles. Since the South Devon Railway Act had received the Royal assent, the directors of that company had been actively engaged in forwarding the works. The directors recommended the continuance for the present of the dividend of 4l. 5s. per share (equal to 9 per cent.), free of income tax, for the half-year; but they looked forward to a sufficient reduction in the interest upon loans, and to such an increase in the receipts of tolls, as would, at no distant period, warrant an improved dividend.—The engineer's report also showed the state of the line to be in excellent condition.

Resolutions, approving the report, authorising the payment of the dividend, and authorising the directors to obtain all powers for the formation of the branch lines, including also a resolution appointing 5 guineas to purchase for a testimonial to Mr. Jackson, for his professional services, were all passed with unanimity.

BIRMINGHAM AND GLOUCESTER RAILWAY COMPANY.

The half-yearly general meeting of this company was held at Dee's Royal Hotel, Birmingham, on Friday, the 23d instant, SAMUEL SOWLEY, Esq. (of Gloucester), in the chair.—The report stated, that the receipts for the half-year ending 30th June last been 55,262l., and the total expenditure 30,661l., leaving a disposable balance of 13,601l., applicable to a dividend of 20s. per share. This decrease in the dividend might probably disappoint those whose expectations were influenced by the recent receipts; but it was at the same time to be borne in mind, that the amount of dividend was more than double what was paid in the corresponding six months of 1843, and that a far more encouraging prospect than then existed of future success. The receipts from the passenger traffic showed an increase of 1200l. over the corresponding half-year, although an advantage had been obtained prior to the opening of the Bristol line, on the 8th July last. The best understanding existed between the directors of the Bristol and Gloucester Railway Company, who were cordially acting together for their own interests and the convenience of the public. The opening of the Bristol line had considerably augmented the passenger traffic, though it had been reduced by the coaches put on between Worcester and Oxford; but it was hoped that the reduction anticipated in the fares of the London and Birmingham line would restore the traffic to its former channel. The increase in the goods had been greater than in the passenger traffic, owing, it was conceived, to the company becoming their own carriers, and the facilities for increasing the merchandise traffic, by laying down a line of rails to the Gloucester Docks. A saving, under new arrangements, would henceforth be effected in the maintenance of the permanent way, to the extent of 3000l. per annum; the expenses of the locomotive department had also been greatly economised—and the directors had under their consideration a scheme for a deviation line to Worcester; they had also a line in contemplation between Bromsgrove and Stourbridge, which would open to the main line a populous and richly mineral district.—The report was adopted without opposition.

CLARENCE RAILWAY COMPANY.

A special and general meeting of the shareholders in this company was held on Tuesday, the 20th inst., at the George and Vulture Tavern, Cornhill, and was fully attended.

The chair having been taken by HENRY BLANCHARD, Esq.,

The SECRETARY (Mr. Charles Browne) read the advertisement, and the following

REPORT.

Since the 30th of September, 1843, the day on which the Lease Commissioners entered and took possession of the Clarence Railway, for the purpose of sale, the committee have caused two printed statements to be submitted to the proprietors, the one in the form of a letter, signed by the secretary of the company, dated Oct. 5, 1843—the other, dated July 31, 1843. The first statement embraced a plan for the re-organisation of the monetary basis of the company, taking at the same time a view of its prospective income. The second statement presented a continued account of the committee's progress with the affairs of the company.

The committee have now to state, that they have succeeded in placing the monetary affairs of the company upon the basis contemplated, with some variation in working out the arrangement, to the company's advantage. The anticipated income, however, for the year 1843, has not been reached. The deficiency, considerable as it is, is to be accounted for in the fact of extraordinary delays having occurred in bringing the Cornbrith, Bishop Middleham and Bradley, and Whitley Collieries into work; and also owing to the remarkable depression of the general coal trade of the country during the year 1843. It is the opinion of the committee that the realisation of that income is not defeated, though temporarily postponed. They have no reason to recede from the general view they took, and the impression they desired to convey of the company's affairs by their statement of Oct. 5, 1843.

The statement of the accounts now laid before the proprietors, from Nov. 1, 1843 (being the day on which the first accounts were advanced consequent upon the proposal of Oct. 5, 1843), to Dec. 31, 1843 (but not including Parliamentary or law expenses), shows the profit of the twelve months ending Dec. 31 to be 12,624l. 10s. 7d.—out of which the committee have been enabled to pay the interest on the Government loan, the interest on the first class preferential shares, and likewise interest at the rate of 4 per cent. on the second class preferential shares.

The books of the company will be open for inspection, at the company's office in London, from the 15th to the 17th instant.

In October, 1843, when the committee reviewed the affairs of the company, they were sensible of the necessity of ultimately altering the system of conducting the local working management on the line of railway. By the Act of Parliament obtained last year, the company became armed with some necessary powers in this respect. After a long and very earnest consideration of the subject, the result the committee have come to is, that the interests of the company will be best secured by executing the powers referred to, in the grant of a lease of the railway for twenty-one years to the Stockton and Hartlepool Company, on the principle of a per centage on the receipts, upon a fluctuating scale—the practical effect of which will be, to place them in the position of the company's local agents, under the control of the committee, the reputation being beneficial to both companies; on the one hand, rendering the Stockton and Hartlepool Company to work their own line to more advantage—and on the other hand, according to the Clarence Company a larger available net income than can be otherwise realised. The Clarence Company will thus derive the acknowledged advantages of amalgamation, in a form the most convenient and desirable for the Clarence Company. The committee are unanimous in carrying all these considerations. The committee have negotiated an arrangement with the Stockton and Hartlepool Company, whereby some objectionable clauses have no doubt, be accomplished; and, under the direction of their solicitor, the draft of a lease has been prepared by the company's solicitor and counsel, which will carry the arrangement into legal operation. The committee now recommend the lease to the adoption of the proprietors.

A resolution, for leasing this railway to the Stockton and Hartlepool Company, was then submitted, and the draft of the proposed lease was read to the meeting by the solicitor of the company, when the measure was agreed to unanimously.

The general meeting then followed, when the report and the accounts submitted were adopted, and ordered to be entered on the minutes.

After a brief discussion on minor points, a resolution was passed unanimously, that the meeting should be adjourned to the 10th April, 1844.

A vote of thanks was then passed to the chairman and directors, more particularly to G. W. Bowley, Esq., for his great attention and valuable aid to the company.—The meeting then adjourned.

DURHAM COUNTY COAL COMPANY.—The first annual meeting of this company since the passing of their Act of Parliament was held on Friday, at the George Hotel, Coney-street, York, and was attended by a numerous body of proprietors—G. T. Andrews, Esq., in the chair. The report of the directors, and the balance-sheet of the affairs of the company, were read to the meeting. The chairman afterwards briefly addressed the proprietors, and expressed his opinion that their affairs would extremely prosper. No dividend was declared.

DURHAM AND SUNDERLAND RAILWAY.—The unappropriated shares in this company have been allotted among the shareholders at 2l. each, with the object of relieving the company from temporary difficulties, occasioned by the miners's strike and the extension of the line to Croxdale Colliery. The directors desired to raise 10,000l., and we understand that the applications for shares would have enabled them to have realised more than double that sum. This fact augurs well for the future success of the line, as far as the opinion of those who should be best informed would lead us to judge.

SOUTH WALES MINERAL RAILWAY.—A correspondent of the Railway Times states it to be currently rumoured in his locality, that one party (Mr. William Bute, contractor, Leicester) has subscribed for 500,000l. said, out of a capital of 1,000,000l. It is added, that Mr. Bute is merely the nominee of a large iron and coal company, at Brymbo, near Wrexham, which, by keeping a majority of the shares in the railway company, would have the supports to their own hands, and could charge any rate they pleased for the carriage of the coal and iron from their own mines. A power of this sort would be obviously detrimental to the interests of the other shareholders, that it becomes important to ascertain whether there is any foundation for the rumour.

RAILWAYS IN SUSSEX.—Mr. Rastrick and numerous contractors are now actively engaged in setting out the lines of railway from Brighton through Lewes to Hastings, and from Shoreham to Chichester, and as soon as these preliminaries are completed the earthworks will be immediately commenced; the Act is to be passed, by means of a plan lodged—and we hear that Mr. Rastrick proposes to open so far as Worthing in May next; we also understand, from good authority, that the line from Hastings to Lewes is likely to be opened to the public in May or June next. In a national point of view, the early completion of these main lines is of immense importance. If the ambient, also considerable the "war party" of France should interrupt communication in their efforts to suppress the two nations, the facility of conveying troops from point to point along the coast will, combined with harbours of refuge, be among our most important means of defence; and the evidence on this point given by the Willoughby Gardens before the Parliamentary committee has placed the matter beyond dispute. There is little doubt that the branch line about to be made to Chichester will at no very distant period be continued to Portsmouth—and we hope that the capitalists that will in the manner be opened to Dover; other line in time, there will be no immediate communication between two of the most important points on the southern coast.

ELECTRIC TELEGRAPH.—Messrs. Cooke and Wheatstone, the inventors, had to receive 1000l. per annum from Government for erecting their telegraph between Portsmouth and the Admiralty—the agreement between the gentlemen and the directors of the London and South-Western Railway have taken the former to throw in their patent rights, and to divide both the time, expense and the profits arising from working the patent with the Railway, who are to grant the use of the line. It is intended further the Admiralty line of telegraph, as soon as the rest of the company's and consider the commercial purposes.

SUBMARINE BOAT BUILDING.—Plans have been submitted to the Admiralty by Mr. Bushnell, a citizen of America, for the purpose of constructing a submarine boat, for the purpose of destroying vessels, which were proved, with the object in view, the following are the principal features:—The vessel is to be constructed of wood, and to be of sufficient length to contain provisions and fuel for twenty-four hours, with a crew of two men, and to be capable of containing a quantity of gunpowder sufficient to blow up a vessel of the largest dimensions. The vessel is to be propelled by means of a screw, which is to be worked by the crew, and to be capable of being submerged at any depth at will, and to remain under water for a period of twenty-four hours. The vessel is to be provided with a rudder, by means of which she is to be steered, and with a compass, by which she is to be directed in her course

MINING RECORD OFFICE, No. 4, SHORTER'S-COURT, THROGMORTON-STREET, CITY.—Mr. HENRY ENGLISH, from the Editorial office of the *Mining Journal*, Railway and Commercial Gazette, POSITIVELY HIS SERVICES as SHAREBROKER and MINE AGENT to CAPITALISTS, to the SUBSCRIBERS of that publication, and to the MINING COMMUNITY. The peculiar advantages possessed by him, and a general knowledge of mining operations, and the localities of the several adventures, must lead him to conduct only his transactions, and information so acquired, calculated to be beneficial to principals.

Mr. ENGLISH is authorized to effect transactions in the following SHARES:—

East Caradon	Treworgie	United Hills
Liskeard Consols	Grenville	Combestone
Wheal Sidney	Wheal Kendall	Cardigan United
St. Austell Consols	Wheal Mary Anne	Wheal Lopes
Others	Borrowed.	

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MINING OFFICES, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.—Messrs. WATSON and CURLL have instructions to SELL SHARES in Wheal Seaton, Hingston, East Pool, Bewnes, Botallack, and Trewavas Mines; and also in several of the first dressed mines in Cornwall, paying 25 per cent.—Messrs. W. and C. have statements of the accounts of the different mines constantly filed at their office, which may be seen, and the last information obtained on application.

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CORNISH MINING AND OTHER SHARES, 10, THREADNEEDLE-STREET, LONDON.

WILLIAM TRENTHY begs to inform the PROPRIETORS of SHARES, that he has the greatest FACILITY of PURCHASING and DISPOSING of all kinds of MINING PROPERTY.—W. T. has just returned from his periodical inspection of the Cornish Mines, and from his practical knowledge of mining, and his extensive connections in the country (being a native of Cornwall), is enabled to give the earliest information to those who may favour him with a call.

Mr. TRENTHY has business to effect in the following SHARES:—East Wheal Rose, Penhalvor Mine, North Roos, Wheal Caroline, South Bassett, East Wheal Crofty, Trewavas, and Trevithick and Barrier Mines, Wheal Gaston, Tywarnon, East Pool, Grambler & St. Aubyn, Bewnes, Trethellan, Tremenheer, and South Caradon Mines.

*** Mines inspected, terms of new mines contiguous to rich ones obtained, and every information relative thereto furnished.

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CHEAP LIGHT.—EDWARD PRICE and Co., PATENTEES and SOLE MANUFACTURERS of the COMPOSITE CANDLE, respectfully call the attention of the public to the fact, that, although the price of them is somewhat higher than that of ordinary mould candles, they are in reality much cheaper than the latter—one real composite candle giving the same quantity of light as two of the moulds. They require no snuffing, and burn more brilliantly than the best wax; the purposes of economy and luxury are, therefore, both served at the same time by the use of these candles. Parties intending to try them for the first time are earnestly requested to take care that they are served to the shops with those now exclusively supported by the public—see that they are stamped "PRICE'S PATENT CANDLE;" the reason for this caution is given elsewhere.

PRICE'S PATENT CANDLE Co.," the reason for this caution is given elsewhere.

There are sold by most of the respectable tallow chandlers throughout the kingdom, and wholesale to the trade by Edward Price and Co., Belmont, Vauxhall; by Palmer and Co., Bolton street, Clerkenwell.

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EUROPEAN LIFE INSURANCE AND ANNUITY COMPANY.

Established, January, 1819.

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BOARD OF DIRECTION.

JOHN ELLIOT DRINKWATER BETHUNE, Esq., 29, Chester square, Chairman.

Thomas Bazett Carr, Esq., 1, Mount street, Grosvenor square.
John Grant Lawrie, Esq., 46, Berkeley street, Portman place.
John Greathed Harris, Esq., 1, Old Palace yard.
Henry H. Harrison, Esq., 7, Percy street, Bedford square.
Thomas Hood, Esq., 11, Wandsworth road.
William Pitcher Joyce, Esq., 10, Cadogan place, Sloane street.
Alexander M. Macdougall, Esq., 45, Parliament street.
William Sargent, Esq., Treasury Chambers, Whitehall.
Frederick Silver, Esq., 10, James street, Buckingham gate.
John Stewart, Esq., 72, Harley street.
Geo. James Watson, Esq., 1, Arlington street, and 110 Lam Grove, Pelgrave Hall, Hants.
John Wright, Esq., 9, Percy place.

THIS ASSURANCE OFFICE HAVING OBTAINED ADDITIONAL POWERS, by Special Act of Parliament, and affords FACILITIES in effecting INSURANCES for half the terms of every class of insurance.

PREMIUMS are received yearly, half-yearly, or quarterly, or upon an increasing or decreasing scale.

The profits of the profits are added annually to the policies of those who effect for life; one-third is added to the guarantee fund for securing payment of the policies of all insurers.

Those who are insured to the amount of £500 and upwards for the whole term of life, are admitted to vote at the half-yearly general meetings of the proprietors.

Prospectuses and full particulars may be obtained at the offices of the company, 10, Chatham place, corner of Council.

DAVID PUGSLEY, Secretary.

AUSTRALASIAN COLONIAL AND GENERAL LIFE ASSURANCE AND ANNUITY COMPANY.

Capital £200,000, in 1000 shares.

DIRECTORS.

Edward Bayntun, Esq., F.R.S.	Thomas Colquhoun, Esq.
Henry Hoskins, Esq.	C. E. Maugham, Esq.
Patrick Stirling, Esq.	Richard Shadbolt, Esq.
John Henry Capper, Esq.	William Walker, Esq.

BANKERS—Union Bank of London.

CHIEFTAIN SURGEON—Bank of Australasia (incorporated by Royal Charter, 1835), No. 5, Bloomsbury square.

PHYSICIAN—P. Fraser, Esq., M.D., 85, Guilford street, Russell square.

SOLICITORS—Messrs. Hughes, Fraser, Hughes, and Co.

SECRETARY—Edward Kirby, Esq.

The advantages offered to ASSURERS by the Australasian colonies by this company are—First, that no extra premium is charged for residence in any of the Australasian colonies, except in New Zealand. Second, that no extra premium is charged to those who engage for the whole term of life, for one voyage out to the colonies; and that the one return voyage; and that provision may be made for the return of the assured during such period, if desired. Third, that the assured may be allowed to visit the colonies, and for one return voyage; and that provision may be made for the return of the assured during such period, if desired. Fourth, that all persons who wish to secure their claims settled in those colonies, can be at present with such arrangements as may be made for the payment of premiums, participation in profits, and the protection of an ample subscribed capital.

Prospectuses and full particulars may be obtained at the offices of the company, 10, Bishopsgate street, corner of Council.

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VICTORIA LIFE ASSURANCE COMPANY

DIRECTORS.

Sir James Duke, Alt. M.P., Chairman. | Hon. Thomas Best, Deputy Chairman.
Frederick Barnard, Esq. | Charles Bedford, Esq.

Peculiar advantages are offered by this company. They—

Facilitate assuring the lives of others may make their policies secure, notwithstanding the life assured may go out of the limits of Europe, without the necessary prolongation of the premium during such previously considered.

Grant at least the premiums for the first five years allowed on policies effected for the whole term of life.

On the payment of five years' standing, half the assured sum, after the first year's premium, may be borrowed thereon by the assured.

Allocate the after wards to commence on loss of habitable premises occasioned by fire.

Allocate to participate in the profits of the company, which may be increased at the option of the assured.

Admission to participate may be obtained to the deposit accommodation of the company, which may be increased at the option of the assured.

Admission to participate may be obtained to the deposit accommodation of the company, which may be increased at the option of the assured.

Prospectuses, which may be obtained at the offices, 14, King William street, City, or by letter, addressed to the secretary.

W. H. ALLNAT, Actuary and Secretary.

NATIONAL LOAN FUND LIFE ASSURANCE SOCIETY.

No. 37, CORNHILL, LONDON.

Capital £100,000.—Empowered by Act of Parliament.

DIVISION OF PROFITS.

The steady success and increasing prosperity of the society has enabled the directors, at the last quarterly investigation, to declare a second bonus, averaging 40 per cent. on the premiums received on each policy effected on the profits until

EXAMPLES.

£ s. d.	Premium.	£ s. d.	Bonus added.	Bonus in cash.	Permanent reduction of premium.	Sum the amount now secure on Policy.
1	0 4 5	1	0 10 0	0 5 0	0 0 5	1 10 0
50	2 4 5	50	10 10 0	5 5 0	0 5 5	60 10 0

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The income of profits is second, and the next will be made at December of the present year.

The institution offers many important and substantial advantages with respect to both the assurance and deferred annuities. The assured has, in all contingencies, the power to borrow, without expense or forfeiture of the policy, two-thirds of the premium paid on same; also the option of remitting annuities, and the assurance of the remainder to avoid other contributions as necessary.

Assurances to the extent of £1000 are granted on the lowest possible rates.

Assurances to the extent of £1000 are granted on the lowest possible rates.

F. GRAVELOT CLERKE, Secretary.

GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY

26, WATERLOO PLACE, LONDON.

THE DUKE OF CLEVELAND, Chairman.
WILLIAM MICKLEY, Esq., Deputy Chairman.

PECULIAR ADVANTAGES OFFERED TO POLICY HOLDERS IN THIS INSTITUTION.

An extensive LIFE RATE OF BONUSES, without participation in the profits, and with the option of any three annual premiums, or paying for the difference, between the Bonus Bonds and the Mutual Assurance Rates, and thus increasing the amount of the assured, and entitling it to full participation in the profits.

Extract from the Scotsman Newspaper, Feb. 22, an abstract of the Great Britain Mutual Life Assurance Society, and the whole Table of Life.

LIFE PREMIUMS.

Age	Half Yearly	Quarterly	Monthly	Without Profits
20	£1 0 0	£0 10 0	£0 3 6	£0 15 0
30	1 1 0	0 10 6	0 3 8	1 0 0
40	1 3 0	0 11 6	0 4 0	1 2 0
50	1 6 0	0 12 6	0 4 4	1 5 0
60	1 10 0	0 14 0	0 4 8	1 9 0

Full particulars are available in the prospectus.

A. S. ADAMS, Managing Director.

35

NORTHUMBERLAND RAILWAY, FROM NEWCASTLE TO BERWICK-ON-TWEED.

Capital £1,500,000 in 30,000 shares, of £50 each.—Deposit £3 per share.

Of which not more than 10s. will be expended until the opinion of the Board of Trade, under the New Regulations relating to Railways, shall have been ascertained.

PROVISIONAL COMMITTEE.

THE RIGHT HON. THE VISCOUNT HOWICK, M.P.
THE RIGHT HON. THE VISCOUNT MORPETH.
THE RIGHT HON. LORD OSSULSTON, M.P. for the Northern Division of Northumberland.
Sir Francis Blake, Bart. Tynemouth-park
Roger Bunton, Esq. of Boston
A. J. Baker Cresswell, Esq., M.P. for the Southern Division of Northumberland
Blenkinsop Coulson, Esq. South-street, Finsbury square
Matthew Culley, Esq. Fenwick Tower
A. R. Fenwick, Esq. Netherton House, Morpeth
The Right Hon. Sir George Grey, Bart., M.P.
R. Hawdon, Esq., Mayor of Morpeth
Joseph Laing, Esq. Alnwick Park
The Rev. J. S. Ogle, Kirkley Hall
Bertie C. H. Ogle, Esq., M.P. for the Southern Division of Northumberland
W. Orde, Esq., M.P. for Newcastle
John Lewis Ricardo, Esq., M.P.
Henry Christopher Roberts, Esq. Lombard street
Isaac M. Samuel, Esq. Antwerp
Prideaux John Selby, Esq. Twizel House
Prideaux Selby, Esq. Swansfield
George Silvertop, Esq. of Minster Acres
William Tewart, Esq. Swinton
Edward Tewart, Esq. Coupland Castle
W. A. Wilkinson, Esq., Chairman of the London and Croydon Railway Company
(With power to add to their number).

COMMITTEE OF DIRECTION.

THE RIGHT HON. THE VISCOUNT HOWICK, M.P., Chairman.
WILLIAM ARTHUR WILKINSON, Esq., Vice-Chairman.

Harwood de Chaters, Esq.	Henry Christopher Roberts, Esq.
Joseph Laing, Esq.	Isaac M. Samuel, Esq.
John Lewis Ricardo, Esq., M.P.	Prideaux Selby, Esq.

With power to add to their number.
(The committee not to exceed Twelve.)

SOLICITOR.
J. E. DRUMMOND, Esq., F.S.S.

BANKERS.
Messrs. Roberts, Curtis, Roberts, and Co., Lombard street, London.
Northumberland and Durham District Bank (Newcastle on Tyne, Morpeth, Alnwick.)

ENGINEERS.
Messrs. Burchell, Ellgood, and Pierson, 15, Parliament-street, London.
Messrs. John and Anthony Lambert, Alnwick.

This line (about sixty miles in length) will complete the great chain of railway communication between London and Edinburgh. From London to Newcastle the railways are made; and from Berwick to Edinburgh the line will be continued by the construction of the North British Railway, which has received the sanction of the Legislature in the present session.

It is proposed to carry the line throughout its entire length as nearly as possible in the general direction of the present main turnpike road from Newcastle to Berwick, passing by the towns of Morpeth and Alnwick as closely as a due regard to the improvement of the undertaking will permit, and through the populous eastern district of the county.

The great amount of traffic between England and Scotland will thus be continued in the present route—the prosperity of the towns and country now enjoying the benefit of that traffic will be greatly increased by the construction of this line—and all objection on the ground of diversion of existing traffic will be obviated.

The undertaking has much local support, and is entirely promoted by, or has the concurrence of, the principal landowners.

It is proposed, under the advice of the engineers, to adopt the atmospheric principle of traction, by means of which the amount of earthwork will be considerably reduced, and the trains will be conveyed more economically, at greater velocity, and with more safety and comfort to the passenger than on the locomotive system. The soundness of this principle has been fully established by the extensive plans before the Committees of the Houses of Lords and Commons on the Croydon and Epsom Railway Bill, by many of the most eminent engineers of the day—Mr. Brunel, Mr. Cubitt, Mr. Vignoles, Mr. Pavey, and Mr. Field, and especially by Mr. Glynne, the engineer of the Dublin and Kingstown Railway, who had superintended its application on the Dalkey extension of that line, and had witnessed its complete success in its continued working during a period of upwards of six months.

The line will not intersect perpendicularly with residential or ornamental property; and, as there will be an entire absence of the noise, smoke, absence of sparks from coal, as there will be an entire absence of the noise, smoke, absence of sparks from coal, fire, and the other annoyances inseparable from the use of the locomotive engine, it will necessarily be more agreeable to the inhabitants of the districts through which it will pass.

The railway will, as a single track line, command the entire traffic between London and Edinburgh, and between the eastern districts of England and Scotland; and, as it passes through a populous country, and one abounding in mineral wealth, and the local traffic will be very considerable. By a short branch to Rothbury, a large population in that neighbourhood would be brought into direct communication with the proposed line.

The estimated expenses of coal throughout the district proposed will cause a considerable reduction in the ordinary working expenses of the line. A still further economy may probably be effected by the stationary engines being employed for other purposes when not required for the conveyance of the traffic on the line.

The company will have power to enter into such arrangements with any other company, as they may deem expedient.

Under the new regulations relating to railways, this scheme will be submitted to the Board of Trade. In the interim of report of the board be favourable, it will, in all probability, secure the sanction of Parliament to the undertaking; and until this sanction or report be made, the expenses will be confined to the sum of 10s. per share.

August 18, 1845.

Application for shares to be made to the solicitors according to the subjoined form:—

FORM OF APPLICATION.

To the Directors of the Northumberland Railway Company.

GENTLEMEN,—I request that you will insert my name as a subscriber for shares in the Northumberland Railway Company, and I hereby undertake to accept the same, or any smaller number that may be allotted to me, and to pay the deposit thereon, and to execute the Parliamentary Contract and Subscriber's Agreement, as and when required.

I am, Gentlemen, your obedient servant,

Name.....
Title or profession, if any.....
Residence.....

Date.....

Signature.....

* N.B.—Orders may continue to be given during the atmospheric experiment on the Northumberland Railway, the applicability of the atmospheric system to a long line will have been established on the Epsom Railway.

31

KOLLMANN'S RAILWAY LOCOMOTIVE AND CARRIAGE IMPROVEMENT COMPANY.

Established pursuant to Act of Parliament of 1st Vict., cap. 73.

Capital £10,000, in 500 shares of £20 each.—Deposit £1 per share.

DIRECTORS.

The Very Rev. the Dean of Rochester, C.B., &c.	William Esson, Esq.
F. Warren Hawkins, Esq.	Captain R. Moorsom, R.N.
Captain G. Hamilton, R.N.	Samuel H. Pierce, Esq.
Thomas Tarleton, Esq.	Captain C. Scale Shervington, R.C.A.
	Walter White, Esq.

Standing Counsel—H. A. Merewether, Esq.
Solicitor—George Smith, Esq., 14, Golden square.
Bankers—Messrs. Cocks, Biddulph, and Co., 43, Charing cross.
Secretary—A. W. Barnes, Esq., F.S.S.
Offices—Albion Chambers, Lime Street, Lothbury.

The object of this company is to bring into general notice and operation the improved system of locomotion, invented and patented by Mr. C. A. Kollmann, which offers the following advantages—

Security from overturning
Security from running off the rails
Perfect facility of passing on curves at any practical speed
Greater flexibility, to accommodate carriages to the inequalities of the railway
Power of proceeding and immediately stopping, hitherto held to be impracticable
Diminution of dead weight and friction
Saving of expense in the construction and wear and tear of the line, carriages and engines.

Specifications, with full details, together with forms of applications for shares, and terms for granting licences, may be had at the company's offices, Albion Chambers, Lime street, Lothbury, and of Mr. George Saville, secretary to the company, 10, Golden square.

37

NORWICH AND BRANDON RAILWAY COMPANY.—At a Special General Meeting of proprietors of this company, held at their offices in London, on Thursday, the 7th day of August inst., pursuant to advertisement, ADAM DAVY, Esq., in the chair,

The following resolutions were agreed to:—

1. That the directors be, and they are hereby, authorized to give the requisite notice to Parliament, in the ensuing session, for powers to make and take such other proceedings as may be necessary for powers to make a line of railway from the town of Norwich to a point in the parish of Brandon, in the county of Suffolk, in the neighbourhood of the town of Thetford, with a branch from the main line of this railway, to or near the town of East Dereham in the county of Norfolk.

2. That, in the bill to be applied for, powers be taken to raise the additional capital required for the construction of such branches respectively, to the amount of one-third of the capital authorized to be raised for the construction of the main line, by the issue of new shares or the engrafting to be allotted among the proprietors of the Company, observing a certain regard to the interest among the proprietors of the Yarmouth and Norwich Railway Company, in the event of an union between the two companies.

3. That this meeting, in approval of the consolidation of this company with the Yarmouth and Norwich Railway Company, and with the act of Parliament, agree the terms, that each shareholder in the Yarmouth and Norwich Company, shall be entitled to the same amount of capital in this company respectively, shall be entitled to the same amount of capital in the United Company, as at the time of such consolidation he shall have in either of the present companies, and that out of the new capital proposed to be created by this company, shares of the nominal value of £20,000 be appropriated among the shareholders of the Yarmouth and Norwich Company, on terms to be agreed upon between the directors of both companies.

4. That the directors be, and they are hereby, authorized to carry into effect the foregoing resolutions.

RICHARD TIDD, Secretary.

BOULOGNE AND AMIENS RAILWAY.—The directors hereby give Notice, that the SHARES in this undertaking are ALLOTTED, and they take this mode of communicating with the numerous parties with whose applications they have been unable to comply, and request them to accept this notification, instead of a letter to each individually. JOHN WHITEHEAD, Sec.

London and Dover Railway Offices, London Bridge, Aug. 22.

39

ORLEANS AND BORDEAUX RAILWAY COMPANY.

Capital £3,000,000, in 120,000 shares, of £25 each.—Deposit £1 per share.

BOULOGNE COMMITTEE.

The Hon. Sir J. C. Meredyth, Bart., K.M.M.
Lieut.-General Sir John W. Gaisford, Bart., K.C.B.
Captain Sir Samuel Brown, Knt., R.N.
William Shaw, Esq., F.R.A.S.
Charles Robinson, Esq.

FRENCH COMMITTEE.

President—Lieut.-General Count D'Autichamp, Peer of France.
Lieut.-Generals Vicomte de Bourcil, Peer of France.
Count Lacepède, Peer of France.
Baron D. Bellegarde, Colonel d'Etat Major.
Baron Rod Dumon d'Agen, Proprietary.
Mons. Edmond Dubrüel, de Bordeaux, Proprietaire, Mail Contractor, and Director of the Messageries from Bordeaux, Orleans, Toulouse, Bayonne, Pau, &c.
Mons. J. C. Henry, Civil Engineer.

(With power to add to their number.)

Bankers in London—Messrs. Smith, Payne, and Smiths.
Bankers in Paris—Messrs. Mayonnet and Co., successors to Messrs. André, Cottier, and Co.
French Engineer—Mons. Mollet.
Consulting Engineer—John Braithwaite, Esq.

Applications for shares and prospectuses to be made to the secretary, at the offices of Mr. W. H. Green, the company's solicitor, 8, Basinghall street, London.

40

CHESTER AND HOLYHEAD RAILWAY.—Notice is hereby given, that the ADJOURNED GENERAL MEETING of this company will be held at the company's office, 62, Moorgate street, London, on Friday, the 10th inst., at One o'clock precisely.

By order,
GEORGE KING, Secretary.
62, Moorgate street, Aug. 11.

41

EASTERN COUNTIES RAILWAY COMPANY.—FINAL CALL OF TWO POUNDS PER SHARE ON THE ORIGINAL SHARES OF TWENTY-FIVE POUNDS EACH.—Notice is hereby given, that the directors have this day made the FINAL CALL of TWO POUNDS per share on each original share in the capital stock of the said company, PAYABLE on or before the 4th day of October next, to any of the under mentioned bankers of the company:—

London and Westminster Bank, Lothbury, or any of its branches.	
Liverpool Borough Bank	Liverpool.
Manchester and Liverpool District Bank	Manchester.
Wilts and Dorset Banking Company	Salisbury.
Messrs. Lennox and Co.	Brentwood.
Messrs. Mills, Bawtree, and Co.	Colchester.
Messrs. Sparrow and Co.	Chelmsford.
National Provincial Bank	Bath.
National Provincial Bank	Birmingham.
National Provincial Bank	Boston.
Western Bank of Scotland	Edinburgh.
Western Bank of Scotland	Glasgow.
Royal Bank of Ireland	Dublin.
East of England Bank	Great Yarmouth.
West of England and South Wales District Bank	Bristol.
Messrs. Harveys' and Hudsons'	Norwich.
Messrs. Bacon, Cobbold, and Co.	Ipswich.
Messrs. Alexanders and Co.	Colchester.
Cheltenham and Gloucestershire Bank	Cheltenham.

By order of the board,
Offices, Shoreditch Station, Aug. 6. A. BULKELEY, Secretary.

42

RICHMOND AND WEST END JUNCTION RAILWAY.

The PROSPECTUS of the above RAILWAY, having its terminus on either side of Hungerford-bridge, and connected with Hungerford market; with the means of bringing in the present south-western traffic to the best terminus in London, will be published in a few days, with a highly influential provisional committee.—The point selected (being the heart of the west end) leaves no doubt in the minds of the promoters of its superiority over all others, and the prospectus will show the various interests combined to carry out the undertaking.

WM. CHAPMAN, solicitor, Richmond.

August 5, 1845.

N.B.—The provisional committee are enabled to state, that several communications have taken place with the directors of the London and South Western Railway Company, and that the prospect of extending their line to so central a point has been readily entertained by those gentlemen, and the undertaking is now in their further and favourable consideration.

43

LONDON AND SOUTH-WESTERN RAILWAY COMPANY —At the Half-yearly General Meeting of this company, held on Friday, the 22nd of August, 1845, at Gate Station, at Nine Elms, Vauxhall,

W. J. CHAPLIN, Esq., in the chair,

The following RESOLUTIONS were adopted:—

That the report now read be received, adopted, printed, and circulated amongst the proprietors.

That a dividend of 3½s. 6d. per share (subject to income tax) be declared for the half-year ended 30th June last, payable on all the 45,000 shares in the undertaking, except those in respect of which the proprietors have elected to receive interest instead of dividends; and that the said dividend be paid on and after the 1st September next.

That the directors be, and they are hereby, empowered to take all such steps as shall appear to them necessary or expedient for the interests of the company, for obtaining powers from Parliament, either for this company solely, or jointly with any other company or parties, to construct a branch railway to Epsom—and, by an extension of such branch, or by any other route which the directors may approve, to establish a railway connection between the South Western and the Brighton and South Eastern lines.

That the directors be, and they are hereby, empowered to borrow upon mortgage or bond, or authorized by the Railway Branch Railway Act of this present session, the sum of £1,000,000, or such less amount as to the directors may seem expedient, and at such times, and upon such terms, as the directors may determine.

That the directors be, and they are hereby, empowered and requested to take all such steps as shall appear to them beneficial to this company, in order to obtain Parliamentary powers for this company, solely, or in connection with any other company or party, for forming a railway from Basingstoke to Newbury, with such extension thereof as may be determined upon for completing the connection between the South Western and Great Western main lines—and, particularly, that they be authorized to raise, or aid in raising, the necessary capital, either by the issue of further shares, or by agreeing to issue the line or guarantee the subscribers thereto, such rent or guarantee not exceeding 6 per cent. per annum on the cost, and half such rent or guarantee not exceeding 4 per cent. per annum on the cost, and half the profits of working.

That the Directors be, and they are hereby, empowered and requested to take all such steps as shall appear to them beneficial to this company, in order to obtain Parliamentary powers for this company, solely, or in connection with any other company or party, to extend the Gosport Branch Railway from Fareham to Portsmouth and Cumberland—and, particularly, that they be authorized to raise, or aid in raising, the necessary capital, either by the issue of further shares, or by agreeing to issue the line or guarantee the subscribers thereto, such rent or guarantee not exceeding 4 per cent. per annum on the cost, and half the profits of working.

That the directors be empowered and requested to enter into such arrangements with respect thereto as in their judgment shall be expedient.

That the directors be empowered and requested to enter into such arrangements with the Proprietors of the Electric Telegraph, and with the Government, for laying down lines of telegraph from London to Portsmouth and Southampton, and to make such expenditure with reference thereto as they shall deem expedient.

That this meeting is of opinion, that the continuation of this railway to cross the navigable point near the Hungerford and Waterloo Bridges, with or without the proposed branch to Richmond, is a measure of great importance to the interests of this company, and recommends the subject to the careful consideration of the board—with the same powers to carry out the same, should such examination be favourable, as the meeting have already delegated to the board as to the Newbury and Portsmouth lines.

A vote of thanks to the chairman and directors, for their able management of the company's affairs, was put and carried unanimously, and the meeting separated.

46

BRISTOL AND EXETER RAILWAY COMPANY.—At the Half-yearly General Meeting of this company, held at the White Lion Hotel, in the city of Bristol, on Thursday, August 21, 1845,

FREDERICK SACRETT, Esq., in the chair,

It was unanimously RESOLVED—

Moved by W. Hill, Esq., and seconded by C. J. Whitwell, Esq.

1. That the report of the directors now read be received and adopted—and that they be requested to send a copy thereof to every proprietor.

Moved by John Moore, Esq., and seconded by Richard Thatcher, Esq.

2. That a dividend of £1 5s. per share, for the half year ending the 5th October next, be declared payable after the 20th of the same month, free of income tax.

Moved by John Moore, Esq., and seconded by C. E. Price, Esq.

3. That the directors be, and they are hereby, empowered to obtain a survey of the country, and take such other preliminary measures as they may find necessary for the purpose, for an application to Parliament in the next session for a bill or bills for making a railway from the main line of the Bristol and Exeter Railway, between Bridgwater and Taunton, to Bridport, Dorchester, and Weymouth, with a branch from such intended railway to Yeovil and Sherborne—and that they report thereon to a special general meeting of the shareholders of the company, to be convened for that purpose.

Moved by John Acton, Esq., and seconded by William Cross, Esq.

4. That the directors be, and they are hereby, empowered to take all necessary measures for applying to Parliament, in the next session, for a bill for making a branch railway from the main line of the Bristol and Exeter Railway to the town of Taunton.

Moved by the Rev. James Taylor, and seconded by J. P. Gardiner, Esq.

5. That a committee be formed for the purpose of consulting a solicitor, and instructed to give gratuitously to our solicitor, J. S. Harford, Esq., for his able, unbiassed, and successful efforts in promoting the prosperity of the Bristol and Exeter Railway, and that Frederick Sacrett, Francis Fuller, and Francis Parfitt, Esqs., be requested to form a committee, with power to add to their number.

Moved by John Scott, Esq., and seconded by Robert Scott, Esq.

6. That the best thanks of the proprietors be given to the directors for their services during the past year.

Moved by W. Harrison, Esq., and seconded by Frederick Sacrett, Esq.

7. That the warmest thanks of this meeting be given to our engineer, I. K. Brunel, Esq., for his very able services to the company.

FREDERICK SACRETT, Chairman.

The chairman having quitted the chair, it was resolved unanimously—

That the warmest thanks of this meeting be given to Frederick Sacrett, Esq., for his able and judicious conduct in the chair.

NORTH WALES MINERAL RAILWAY.—Notice is hereby given, that the FIRST GENERAL MEETING of this company, pursuant to the Act of Incorporation, will be HELD at the company's office, 62, Moorgate street, London, on Friday, the 26th August, at Three o'clock precisely.
W. R. COLLETT, Chairman.
The registration of shareholders will be completed on Thursday, the 31st August. Forms of letter required to be filled up, and sent in with the subscription vouchers, may be had on application.
By order, GEORGE KING, Secretary.
62, Moorgate street, August 19.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES, AND CLOCKS.—E. J. DENT, 61, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public that the manufacture of his chronometers, watches, and clocks is secured by three separate patents, respectively granted in 1826, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from 8 to 10 guineas. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.—DENT'S PATENT DIPLIEDOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets, containing a description and directions for its use, 1s. each, but to customers gratis.

NOTICES TO CORRESPONDENTS.

MINING PROSPECTS—HUME, SPAIN, AND AMERICA.—The letter of our valued correspondent, "J. W.," apparently stands over, but which shall appear in our next—as also a report of the Proceedings of the Miners' Society—and a Table of the Gradients of Inclination, for the Use of Thunderbolts and other Instruments.

LEWISHAM AND GREENWICH RAILWAY.—The letter of Mr. R. S. Burlingame, which is deserving of the attention of the shareholders, would have received notice, but for the pressure of other matter. We shall, however, not lose sight of the subject.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, AUGUST 24, 1844.

The Strike in the North has, we are happy to say, been virtually brought to an end. We will not say one word as to the past, but content ourselves with the reflection, that we have throughout pursued one even and straightforward course in the remarks we have felt called upon to make. It is not for us now to revert to the conduct of individuals; sufficient is it that the man and master, the employer and employed, are once again united in a bond, which, whether by the month or year, is, we trust, that of good feeling and unanimity—while we cannot doubt but that the collier will henceforth deprecate and evince his hatred to those lawyers and selfish delegates who would have sacrificed him for their own advantage.

It will be observed, on reference to our columns, that the iron and coal masters, and others interested in the mineral district of South Staffordshire, have lately held a meeting, having for its object the consideration of the heavy imposts and charges on the transit of coal by canal communication—the consumption since 1832 having declined very considerably, from the excessive tonnage rates on the several canals; at which meeting a committee was appointed, to prepare a memorial to be laid before Government, and to communicate with the Birmingham Canal Company, as also to wait upon the owners and representatives of mineral property in the district, with the view of soliciting their aid in upholding the rights of parties interested, so as to afford those facilities which ought fairly to be rendered in passing to the midland counties and some of the principal ports of the kingdom.

There can be no question but that railway communication has to a considerable extent had an effect on canal conveyance, and thus the interests of canal proprietors must have been seriously injured; but it remains to be seen whether the course pursued is likely to prove beneficial or otherwise. It appears, then, that with a reduced tonnage, they have thought fit to increase the toll or dues. Now, if they expect that they will either keep up or enlarge their dividend by such means, we have no hesitation in saying, they make a sad mistake, for it is notorious—and they might take a lesson of railways—that the less toll or charge, the greater the traffic, and the more profitable returns. It appears to us that the attention of the canal proprietors should be applied to the improvement, if practicable, of the mode of conveyance, and lessening the charge, whereby they might compete with railways, rather than putting on an extra toll to make up for the reduction of tonnage on the line; and this consideration brings under our notice a project which we are given to understand is seriously entertained, as to the application of the means of benefitting the canal proprietors, which we shall proceed briefly to describe. Several projects have from time to time been put forward for the economical application of steam to canal communication, but without being carried to any successful issue—the washing of the banks, the cost attendant the modus operandi, and other difficulties to be contended with, having precluded the proposed measures being attended with any beneficial results.

We have within the past few days, however, had submitted to us a proposed system of operation, which we must confess at first sight appears to us to hold out expectations which we shall be glad to find are crowned with success. Our limits preclude us from entering into detail on the present occasion—but, as the project will, doubtless, come before the public on an early day, we have only to direct attention to it, and furnish such brief description as our space admits—while we do not feel ourselves warranted in furnishing those minute particulars which will be, we believe, put forward by the parties. The point to which we would direct attention is, that of improvement in the application of steam as a motive-power for canals and railways—the latter being with us, on the present occasion, a secondary matter. The modification is stated to possessing many advantages over any other plan hitherto tried, being that of an improved and economical application of dead or stationary engines for hauling on canals and railways, by the combined use and peculiar application of the patent wire rope, and other adaptation of principles known. Its application to the towing of boats on canals will be most important, as the speed will be much increased, and the expense of working in the manner reduced. Many attempts have, we understand, been made to tow boats along the ordinary canals by means of steam-tugs; but in consequence of the want of water, and the numerous narrow locks, and the washing away of the embankments, difficulties have arisen which can only be surmounted by a modification of this nature.

Should the plan projected come into effective working, the commerce towards canals, which are now nearly deserted, might be rendered available for railway transit; at the same time affording communication with the several towns in the contiguity of the line—while the liability of any kind of accident will be greatly diminished.

We hope to be in a position in our next, or, at least, in an early Number, to give a more detailed statement, with the result of experiments and calculations made, showing the saving to be effected by the application of this principle.

THE ABERGAVENNY RAILWAY SCHEME.—At the meeting of the London and Croydon Company (a report of which appears in another column) it was mentioned by the chairman (Mr. Wilkinson), that Mr. Cubitt (the engineer) had, in company with several of the London and Croydon directors, visited and inspected the Dublin and Dalkey atmospheric line, and his opinion in favour of the applicability of the principle to the Epsom and Croydon and London and Croydon lines had been strengthened and confirmed by such inspection. Mr. Bascule (the patentee), who was present at the meeting, was appealed to by the chairman on the question, of the expense of working the Dalkey line, when that gentleman stated that during the five months this line had been opened, the receipts had exceeded the expenditure by a sum which represents the interest of 5 per cent. on the whole amount of the outlay. The expenditure on the line (nine and three-quarter miles in length), including purchase of land, had been about 35,000*l.*; the lines are 3*d.* and 2*d.*

COST OF CONVEYING IRON AND COAL ON CANALS IN SOUTH STAFFORDSHIRE.

We briefly noticed, in our last Number, an important meeting of ironmasters, at Tipton, in Staffordshire, to take into consideration the best measures to be adopted for securing a reduction of tolls, and whether it would not be desirable to take the necessary steps for obtaining, in the next session of Parliament, powers to shorten and improve the navigable communication between Birmingham and London. The gentlemen present appeared unanimous in the sentiments entertained and expressed; but one feeling seemed to pervade the meeting—viz., that the iron-trade was seriously injured by the enormous tolls and other burdens imposed by canal proprietors.—Mr. P. WILLIAMS, who very properly designated this as really a Birmingham question, referred, at considerable length, to many grounds of complaint, more particularly to a compensation toll of 1*s.* 6*d.* per ton on coal, payable to the Oxford Canal Company, for passing from the Warwick and Napton to the Oxford Canal; also a charge of 6*d.* per ton, payable to the Grand Junction Canal Company, for goods passing on to the Napton Canal, although the Grand Junction is five miles distant; and to the numerous compensation tolls payable to the Oxford Canal and the Warwick Canal, under the Stratford Canal Act. He next alluded to the high charges and extortions made by the Grand Junction Company—viz., a boat passing with twenty tons, or less, was charged as thirty tons—a boat passing singly through the locks was charged 10*s.*, but, if such boat return empty, and pass singly, it was then charged 21*s.* Boats would often wait for several days for another boat to accompany them, in order to avoid this charge. The Coventry, Oxford, and Grand Junction Canal Companies charged short, instead of long weight, which amounted to an additional tax; and, since the opening of the railway into Derbyshire, coal had been sent from thence to Saltisall, Knowle, and Warwick—districts which were formerly supplied from South Staffordshire.

MR. FELLOWS read some correspondence between himself and the Grand Junction Company, which showed they were becoming alive to the diminished quantities of goods which passed on their canal, he stated that large quantities of iron were sent to Hull for shipment to Germany, which would, but for the high tolls, have gone to London, and had no doubt but that that company were losing the carriage of large quantities of iron in consequence.—MR. RAGNALL added one other fact, in addition to those already mentioned, to show the impossibility of the companies keeping up their old charges; while they were then meeting, a large quantity of iron was being landed at Hamburgh, which had been produced at his works on *that* day week, such was now the power of steam, in connection with railroads and ships; and how, under such circumstances, could they, for a moment, expect to keep up their old charges?—MR. P. WILLIAMS further stated that he had repeatedly endeavoured, but in vain, to induce the Worcester Canal Company to meet the changes that had taken place—the consequence was, he sent 300 tons of iron by railroad soon after, which was delivered in a few hours. He passed a just eulogium on the Birmingham Canal Company, as being the most liberal in the kingdom, having spent 1,100,000*l.* in improving the lines, had reduced the distance, and lowered their rates even below the minimum of what they were entitled to by Act of Parliament.—A series of resolutions were then unanimously adopted, expressive of the opinions of the meeting, that it was essential to the prosperity of the district that the navigable communications with the rest of the kingdom should be as little encumbered with lockage as possible, and that the rates of tonnage be within fair and reasonable limits; that while other improvements have taken place between the various towns, the navigable communications have undergone no considerable improvement.—A committee was then appointed, consisting of J. Williams, P. Williams, J. E. Piercy, Sparrow, T. Bagnall, Davies, Thorneycroft, and J. Spittle, Esqrs., to appoint a meeting with the canal committees; to urge the Birmingham Company to undertake the making a new canal to connect the Fazeley with the Oxford Canal; and to take such other steps for effecting the objects of the meeting, as they may think proper.—A casting vote of thanks, having been passed to Mr. J. Williams, for his conduct in the chair that day, the meeting adjourned.

INVENTIONS FOR THE COMBUSTION OF SMOKE.—No. III.

IVISON'S PATENT.

The plan adopted by Mr. Ivison, of Thistle-street, Edinburgh, for the perfect combustion of the fuel employed in steam-engine and other furnaces, consists in ejecting a small quantity of steam over the fuel in the furnace (not through it, or ejected down upon it); the steam, thus mixing with the gaseous productions from the coal, becomes decomposed into its constituents, oxygen and hydrogen, the former of which takes up the uncombined carbon, becomes perfectly consumed, and the products escaping from the chimney consist of invisible gases, such as carbonic acid, sulphuretted hydrogen, &c. The means employed for effecting this object are simple in the extreme—a pipe for the conveyance of the steam is carried from the upper part of the boiler through the brickwork over the fire-door, terminating in a fan-shaped orifice, thus discharging a continuous and powerful, but small, jet of steam, in a nearly horizontal direction, through the furnace. The effect of this application of steam over the furnace, on the draught was so powerful, that when applied to the several old and large chimneys, means were obliged to be adopted for lessening the current of air.—After many years' experience in the application of this invention to all descriptions of furnaces, the boilers were found to be uninjured; and the saving effected in fuel has in some instances reached 30 per cent., and in no case has been less than from 10 to 12 per cent.

Dr. Fyfe operated on one description of Scotch coal, in furnaces with and without the patent, the results of which proved the great advantages of its use; with it, the evaporative power of 1 lb. of coal was 10·76 lbs. of water, equal to 9·704 lbs. of coal to the cubic foot of water—while without the patent, only 6·17 lbs. of water were evaporated by 1 lb. of coal, equal to 10·82 lbs. of coal to the cubic foot of water. The proportional quantity of fuel employed with the patent and without it was—with it 1619 lbs., without it 9426 lbs., for the same period, in the same furnace, and performing the same work. The general results of the invention may be thus enumerated: a perfect prevention of smoke, rendering tall, large, and expensive chimneys unnecessary for land-engines—in marine-engines, lessening the unsightly appearance of the present large funnels—in locomotive-engines, in creating draught—and in general, a great saving of the power now lost in the use of coal instead of coke, with a great saving of fuel, from 12 to 30 per cent. No complaint has the combustion been in chimneys constructed for the purpose, that the heat in the chimney itself beyond that flues has not exceeded the working point of lead and zinc—viz., 612° to 700°.

With regard to smoke, the following among many results may be stated. The chimney of five furnaces, 125-horse power, was watched, and effluvia were to the following results:—

	Time.	No. smoke.	Smoke visible.	Dark smoke.	Density.
With patent	3 hrs.	30 min.	2 min.	30 min.	3
Without	3 hrs.	30 "	150 "	140 "	5

PACHUCA MINING COMPANY.—This company has been lately formed, the working some mining ground in the neighbourhood of Pachuca, situate almost sixty miles from the city of Mexico, and five miles from the mines of La Real del Monte. The two mines secured by the company are those of La Esperanza and La Regona, which afford several facilities for working to a considerable depth, without the application of steam-power. The vein of La Esperanza is shown in the accompanying plan of Cornwall, about six yards south of the Cabadonga Mine, being nearly parallel; several shallow pits have been sunk on the back of the hills. The proprietors of San Cristobal (a moiety of which is held by the Earl of Packnam, affording the means of working the two yards above the level of Packnam, affording the means of working the mine by adit levels; and should water be met with, which is not expected, no adit may be taken upon the course of the vein, from the bottom of the valley. La Regona Mine has been worked to a depth of seventy fms yards, and a considerable quantity of ore extracted. The capital of the company is 80,000*l.*, divided into 8000 shares, of 10*l.* each, with a deposit of 2*l.* per share. Several have been already issued, and a further call has been lately made. The direction is composed of gentlemen established with the Real del Monte, among whom we are glad to find Mr. John Taylor, whose extensive services and intimate acquaintance with mining operations in Mexico, will, doubtless, be duly appreciated, and be attended, as we hope, with successful results.

ANTIQUITIES.—A specimen of rather extraordinary size, of the very rare species *Asaphus Tyrannus*, has, a few days ago, come into the possession of Dr. Thomas Fletcher, Ryton. The remainder is seldom found in the secondary formations; but, when so, it is of greater dimensions than those of the entire specimen, to which circumstance are frequently met with in abundance. This specimen is in matrix, and is very interesting to the curious; it was found in a quarry of limestone near Calverton.—*Darlington Chronicle.*

MINING IN MEXICO.—No. XIV.

By comparing the Freyberg method with that of Mexico, we see that the first employs a quantity of salt equal to 10 per cent. of the weight of the mineral, in place of 2½ to 3 per cent. employed in the second, which represents on the amount consumed 250 to 300 per cent. more than the quantity used in Mexico. The principal advantage of the Saxon method of amalgamation is the trifling loss of mercury, which corresponds, according to M. Lampadius, to 2·340 kils. or 2·000 kils. for 23·370 kils. of silver obtained. The Saxons also separate all the ore containing galena, so as to treat it more advantageously by fusion, and to avoid the inconvenience of the presence of the salts of lead, which, reduced by the iron, give a very inferior amalgam, and absorb an enormous quantity of mercury. In the greatest number of the argentiferous ores of Mexico, we find very considerable quantities of galena, and which cannot be separated; for these ores the Saxon method would have this inconvenience in addition. If by chemistry we could resolve the question of the complete obliteration of silver by the cold process, without the presence of mercury, and by such methods that they would not exceed the cost of 6 per cent. of the silver obtained, or 61 grammes of silver for 500 kilogrammes of ore, the loss of mercury would be avoided, and the produce of silver in Mexico would cost 10 per cent. less than at present, which would be a premium of encouragement, the result of which would considerably influence the production. It has been seen that I value the total quantity of gold produced each year at 3,000,000 of piastres. A fourth or 6th of this amount seemed to be obtained by washing, or by the treatment of the ore so rich, that the gold is there inclosed in such proportion that its weight is almost equal to that of the silver. These washings and this sort of ore are only seen in the north of the province of Sonora, which I have not visited, and as we want much more precise information in respect to those countries, I cannot advance anything certain of their chances of augmenting the produce of gold in particular. The process of washing has been done hitherto without much regularity; it is the duty of the Indians, many of the tribes of which are still so barbarous that they render any habitation in these vast regions impracticable for the inhabitants of more civilised countries. At present, Mexico does not appear to people the north-west portion of its territory, for the whole energy of the Government is centralized, and all its means are absorbed since the independence by the revolutions which break out at short intervals in the south of the republic, where every sort of ambition is at work in the centre of the population. Being there concentrated, the troops have not been able to defend Texas from the emigrants of the United States, and the department of Chihuahua, as well as the northern parts of Zacatecas, Durango, and San Luis Potosi, which are continually ravaged by the Indian tribes which have preserved a state of independence around several cities, and the vast agricultural establishments founded by the Spaniards in the midst of these deserts. The Apaches, known for their ferocity, exert it not only on men, women, and children, and all the animals destined to a domestic life, but also on every object which announces a life of civilisation; they continually encroach beyond their limits, and come down in torrents from the Bolson de Mapimi, which is a vast desert peopled only by themselves, approaching even to the gates of Durango, Chihuahua, and Marapil, slaughtering the agriculturist, and then driving off the immense flocks which cover these plains. When the departments comparatively near the capital are liable to such a scourge, we may justly observe that it would be premature to say at what period civilisation may bring the auriferous districts of Sonora and the Californies into a regular exploration. As to future prospects in the old metalliferous districts of the Mexican republic, the produce of gold would seem necessarily to follow in some way the produce of silver, which might be augmented by a more perfect supplementary treatment of the residue from amalgamation. The treatment of the patio leaves unalloyed the pyrites of iron and copper. The gold which they contain escapes—consequently, the action of the mercury. It is thus seen that a roasting which would decompose these sulphurs would permit the gold to be extracted. The tenor in gold of the residues of Guanaxuato has never been well determined; for the reasons I have explained, we may consider it as important, if we compare it with the quantity of gold extracted by the mercury. To appreciate with some exactitude the variations that the deposits, the extraction and reduction of the ores, could bring into the future production, it has been necessary to make many digressions, and being now arrived at the limit I have proposed to myself in this work, I will shortly make a recapitulation of them, and thus render my observations more concise. Nearly all the argentiferous deposits contain more or less of gold, at all the points, numerous in Mexico, where the more ancient of the sedimentary rocks are nearly all argentiferous when they of quartz which traverse these rocks are nearly all argentiferous when they contain metallic sulphurs. There exist still immense riches in the ancient mining districts, explored for three centuries, but yet little explored beyond a certain depth. We cannot tell what any new workings might produce, which will not fail to be undertaken, on the western slope of the Cordilleras, to the north of Durango. The exploration of the argentiferous veins is subject to the cost of the treatment, and the duties on the silver, in general the extraction is only practicable where the medium tenor of the ore selected is from 0·0015 to 0·0020 in richness. The expenses of extraction seem but little capable of diminution, except as far as concerns iron and gunpowder. The draining off of water, which is an important item in the expenditure, has been facilitated in various places by means of steam power; but, unfortunately, the want of fuel is an obstacle to the employment of this means in most of the old explorations. This want of fuel, which is still increasing, is also opposed to any great development of the treatment by the dry method, which might receive great improvements, either in the construction of the furnaces, or the method of fusion. The cost of treatment by the wet method will always be high, as long as it requires perphyrization, which is always costly in a country deprived of falls of water and fuel. It is impossible to foresee all the changes which chemistry may introduce into the reduction of silver into a metallic state, but if we consider mercury as the best agent for re-uniting silver in that state (and which it can do without considerable loss), we must either find a means of reducing the sulphurets of silver without making them pass to a state of chlorures, or separate the chlorination from the amalgamation, which at present cannot be done without inconvenience. As long as chlorination is considered as the best method for bringing the silver united with sulphur to a metallic state, the high price of salt seems to be, for the metallurgy of silver in Mexico, a great obstacle to the application of the treatment by the wet process, as well as in relation to the cost as to the extent. The high price of mercury for several years makes this metal form at least one-tenth of the cost of silver in Mexico. On the medium title of the ore this value of the mercury represents 0·0002 of silver. According to the price at which the Spanish Government, in the first years of this century, supplied the mercury, the value of it would have only represented 0·00004 of silver. This is, no doubt, a heavy burden for the speculators, but the withdrawal of the Spanish capital, the high interest of money, and the political commotions have created, and still exert, an additional influence to their prejudice. It is not astonishing, then, if mining in this country be a ruinous speculation to most of those who engage in it. The condition of the mines, also, as far from improving, will become more intricate as the ores are extracted, for the richness of the ore extracted in 1570, and the richness of the ore now extracted, being nearly identical, the quantity of silver extracted remains the same, whilst the value of the metal is reduced in a proportion, which can be expressed by the difference of the purchase obtained in 1570, and that which could be obtained for the same weight of the metal at present. The day must come eventually when the produce of silver will bear no other limits than those which may be imposed by the continuously increasing increase of the value.

NATIVE OR CUPREOUS.—There are two known oxides of copper, which with the carbonates, or black oxide, which alone combines to form salts, and whence it is Cu O—this is the bisoxide of foreign chemists. Cu O₂ is a hydrate, or other oxides of copper were proposed to exist; some time ago, however, Dr. Lyon Playfair announced that he had formed a higher oxide (Cu O₃), at a meeting of the British Association in Manchester, which, in fact, as a meeting of the British Association in Manchester, reports said, in fact), as a meeting of the British Association in Manchester, no particulars have since been given to the public. A memoir has recently been published by MM. Favre and Maumené, in which they show that, when the black oxide is strongly heated per se, it is not merely found, as was hitherto supposed, but is resolved into cuboidic copper, and a new oxide, whose composition is $Cu_{12} + O_{11}$. To look forward to analysis, and in particular it is worthy to call to the profession, or subscribe of English chemists, while the method, by absorption of oxygen, speedily becomes known, and repeated here into cuboidic. This is no unpractical fact, both as regards and repeated here into cuboidic. This is no unpractical fact, both as regards to the use of this oxide as an oxidising agent in organic analysis—which, long

KOLLMANN'S IMPROVEMENTS IN LOCOMOTION.

The difficulties of execution, and the enormous expense, in most instances, attached on the formation of railroads upon the present system, from the absolute necessity of obtaining curves of large radius and gentle inclines, has indeed numerous inventions, to enable the engine and carriages to overcome these difficulties—at the same time to secure an increased degree of safety and comfort to the passengers; and many of these possessing considerable merit. The system under notice, which appears to have been matured after considerable labour and expense, combines various improvements, which, together, secure many advantages over the old plan—such as perfect security from overturning, or running off the rails—facility of passing curves of small radius, and a flexibility which accommodates the vehicles to any irregularities, and prevents rocking or jolting—a power of ascending gradients hitherto impracticable—diminution in weight and friction—saving of expense in the construction of the road and carriages, as well as in the working, and causing less wear and tear of engines and carriages. The invention has, we are informed, been so satisfactorily proved to combine these advantages, in the highest degree, that it has been decided by the company to have thirty miles of a newly-projected railway surveyed, with the confident expectation of the adoption of this system, which we shall now endeavour to describe:—First, to enable the engine and carriages to run on sharp curves, the wheels are not placed on axles to fixed bearings, as on the usual plan, but the body of the vehicle is hung in two strong frames, turning on a vertical axis running from top to bottom; on these frames are placed the wheels, which are without flanges, and perfectly flat on the periphery; on taking a curve, they thus adjust themselves to its radius, the two on the inner circle approaching each other, and those on the outer circle separating—a line drawn through either pair pointing to the centre of a circle, of which the curve is the arc. Along the whole line is a central rail with a projecting top, a section of which is in form of a T; to the bottom of each frame which supports the bearing wheels are two horizontal wheels, which revolve against this rail beneath the projections, thus effectually preventing them from running off, guiding them in their transit, and, by the flexibility thus obtained, preventing all grinding and sliding, which, under the present system, adds so much to the friction, wear and tear, and loss of power. To enable trains to ascend gradients more steep than have yet been accomplished by any other plan, a wheel of smaller diameter than the driving wheels is fixed on the outside of each of them; these wheels are corrugated on their outer circumference, and, on reaching the foot of the incline, they take on to raised rails, laid along the outer sides of the bearing rails, and preventing the periphery of the larger wheels from bearing on them. The diameter being thus considerably diminished, a corresponding increase of power is obtained on the crank, at a proportionate loss of speed; but it is at a moment when speed is of less consequence than power—and, from the serrated surfaces of the wheels and rails, a powerful hitch is obtained, and the ascent accomplished.

It is now necessary to consider the economy of the present plan over that of the old systems, and here its details must be looked at in all their bearings. At first sight, a system requiring three rails on the whole line, and two additional on inclines, would appear to involve an expense which would at once render the scheme abortive—such, however, is not the case. In the first place, the necessity of cutting, tunnelling, embanking, and other engineering difficulties and sources of vast expense, being considerably diminished, will obviate some of the most serious of railway costs; the capability of traversing curves of small radius will, in numerous instances, avoid the necessity of passing through parks, building land, and other property of great value; the flexibility of this system, and absence of strain and percussion, enables the carriages to be built of much lighter description than has hitherto been practicable—thus enabling a greater amount of paying weight to be drawn with the same power; while the saving arising from the diminution of wear and tear in locomotives, carriages, and rails, will form an important second distraction to the working cost of railways. These are some of the advantages in point of economy, and the additional rail in the centre will not involve that increased expense in the construction which might at first be supposed; indeed, when we consider the heavy metal of which the present rails are obliged to be made, and corresponding strength of sleepers, chairs, and general work, it will be obvious that a line complete on this system could be formed at even less cost per mile, while the before-mentioned diminution in expenditure will be all so much gained. The outer rails may be formed of timber only, which may be prepared on Payne's principle, by which it becomes nearly as hard as iron itself; or they may be faced with a flat rail of iron, of no great thickness or weight; the inner rail would be of timber, to the outer surface of which lengths of angular iron—(thus ⊽ F)—would be screwed to form the projection for the horizontal guide wheels to work under; and, from the greatly diminished ponderosity of the trains, the works in general would be less costly than at present—taking into the account the guide rail and raised rails for inclines—possessing, at the same time, ample strength for ensuring perfect safety, and withstanding the slight wear and tear which, on this system, the whole would be subject to.

That there are serious debits inherent in the present system and appurtenances, is, we believe, pretty generally acknowledged—the removal or amelioration of which have been the subjects of serious consideration with all our railway engineers, but hitherto without success; while the enormous cost, in situations where the least engineering difficulties occur, has deterred the formation of lines in numerous localities, where the enterprise would be profitable, and of great public utility, provided they could be accomplished at moderate cost. How far the inventions of Mr. Kollmann have removed some of these debits, we shall shortly have an opportunity of judging, from actual trial; from the numerous experiments which have been made with models, on a large as well as small scale, they have completely answered the inventor's expectations—and the value of the plans have been so satisfactorily proved, that a company has been formed for bringing them into general notice and operation. The capital is 10,000*l.*, in 100 shares of 100*l.* each, to be applied to the purchase of the present patents, and taking out further ones in other countries, as well as superseding the system by such experiments as may be necessary. The patents are vested in trustees, for the benefit of the shareholders and investors—and the directors are prepared to grant licenses to railway companies to introduce the system on their lines, whether already existing, or still to be formed; and, as the operations of such a company will involve but little expense, it is confidently expected that a very considerable return will be realized for the capital invested—while the benefits which will be conferred on the public generally by the extensive introduction of these improvements may be said to be incalculable.

Progress of Gold in the Ural Mountains and Siberia.—The vast increase in the produce of gold in the extensive districts of Siberia and the Ural, is likely, at no distant day, to have a serious influence on the estimated value of the precious metals. Since 1829, which may be taken as the first year in which individual enterprise was encouraged by a discovery of any value, the increase has been from 11 pounds to that year to 835 pounds in 1843. A table of each year's produce, up to 1842, was published in the *Mining Journal* of the 27th April; the total from Siberia, the Ural, Kolhywan, and Nertchinsk, during the year 1842 was 1,234 pounds—equal to upwards of 53,000 lbs. troy, or 2,333,333*l.* sterling; and this is exclusive of the amount contracted, which is estimated at one-fifth of the whole, to avoid the subjoinder of 10 per cent. levied by the Crown; this produce of 1842 exceeds that of 1841 by 12,500 lbs. troy, or 533,333*l.* sterling; and, from the large number of individuals who have embarked capital in the speculation of searching for gold—nearly the whole extent of Siberia being given up by the Crown, under certain regulations—and the continued success which seems to crown their efforts, it appears probable this annual increase will reflect to augmented than otherwise; and such an extensive supply of the precious metals must eventually exercise a powerful influence on the value of the circulating medium of all countries.

Patents Acts.—Several notices have lately appeared, with reference to applications which have been made to dissolve an accident for private and some than views, the subject was discussed in the Common papers, when it was apparently satisfactorily proved, that such cannot be granted—the being immediately removed by passing measure of parliament and measures only, dissolved by words, on the hand and spirit. Mr. Spencer, a chemist, who instituted a series of experiments on minerals, for the purpose of observing the effects, and of discovering the means to be pursued in case of proceeding by that field; in fact, if we mistake not, invited the attention of the medical profession to the fact, that colchicine prepared with grapes will result in, or even occasion, from spurred death by safely growing with worse eyes due hand and spirits.

ORIGINAL CORRESPONDENCE.

TRANSFER OF SHARES.

Sir,—As an adventurer in Cornish mines, I look to your *Journal*, as the medium of acquiring information, or correcting irregularities, as well as abuses, where such are proved to exist. Having purchased some shares in a mine in the county in the month of April last, I find that a call had been made about a fortnight antecedent to the transaction, and to which I was, consequently, not liable. The shares were regularly transferred in the cost book; but, on making a remittance for the amount of call on shares previously held by me, and standing in my name at the time of such call being made, to my surprise I was informed that the amount so remitted could not be received, as other calls were due on the shares which had been subsequently transferred.

Now, Sir, my object in addressing you is, to ask whether you do not consider that the refusal on the part of the purser to receive the amount proffered subjects him to make good any damage I might sustain from the inconvenience of selling and transferring my shares?—and whether, moreover, the broker is not accountable for any loss which may arise from his neglect in not seeing that, previous to the transfer being made, all calls had been paid? or else, why do I pay him his commission? Under any circumstances, I ought not to be the victim; and I shall be glad if you will give me your opinion on the subject, which may be useful to others, as well as to

London, August 31. A London Adventurer.

[The letter of our correspondent came to hand at too late an hour to admit of consideration, or those remarks which the importance of the question mooted demands. It shall, however, have attention next week, as we consider the points raised of importance to the mining interests.]

ON THE SMELTING OF CUBA ORES.

Sir,—Allow me to set you right with respect to the quality of the Cuba ores being improved by a mixture with those from Cornwall, which last possess a very impure and coarse average, and which is much benefitted by adding the clean calciferous or oxides from the Cuba Mines—the "stock" is thus improved. Neither is an admixture of Cornish ores at all requisite for the smelting of those from Cuba, which possess sufficient sulphur in themselves to free the metals from their slags. I am free to confess, however, that this does not equally apply to the ores sent us from Chili. Thomas J. Hill.

Castle-court, Birchin-lane, August 31.

[We give our correspondent's letter as we receive it, without offering comment. We have our own opinions—but, as the statement is put forward as matter of fact, and not opinion, we leave the subject treated upon to our correspondents, who, should they fall in offering any remarks on the subject, may induce us to say a word next week.]

LONDON AND GREENWICH RAILWAY—DOVER LEASE.

Sir,—The enclosed statement (its substance has been furnished long since to our or two proper quarters) may enable the Greenwich and Dover shareholders to take a fair view of the question of lease, and, possibly, thereby lead to such an offer as is worthy of the Dover to offer, and the Greenwich, such as our dismembered order, to accept. The Board of Trade, Sir, were put in possession of the case of the Greenwich property just previously to the meeting of Parliament; and I, for one, have no doubt of the Government Railway Bill being found beneficial to property and to the country.

41, Threadneedle street, Aug. 31. H. B. Schumacher.

Supposed Basis for the Dover Company Leasing the Greenwich Line.

Money capital of the Greenwich Railway is	£825,000
Or, to the stock	£825,000
Of which £165,000 is in 6 per Cent. Bonds, redeemable at the company's option, and £55,000 is borrowed at 5 per cent.—together	220,000
Leaving raised in shares	£605,000
Say, First Preference, 7000 shares, of £20—all paid	£140,000
Second Preference, third shares, issued at 15 discount	45,000
In Unpreferred shares, first and second calls, 21,877 shares, £10 each, £8 10*s.* do.	320,000
As above	£765,000
Add discount on third shares, Second Preference, 15 per share	14,250
	£779,250

Average of Preference, 11,250 shares, £13 12*s.* 9*d.*
Ditto of Unpreferred, 43,877 shares, £13 13*s.* 8*d.*

If Leased by the Dover on Mutually Beneficial Terms.

	£	*s.*
Working by Dover Company, estimated expense—say		
1843—Greenwich gross income, about	£ 54,000	
4 per cent. on shares—say on £775,750—would be	£30,310	
Bonds and borrowed money of 5, in lieu of 5, per cent.—say 4 per cent. on £165,000	2,333—	47,666
Leaving against working, about		6,333
Directors' salaries		500
Under allowance to the Brighton		4,000
Leaving of surplus, with of prosperity and wanted for payment of perpetuities		B
		C
Increase from other and better management		
Ditto from the signal note clause, or reduction of Coupons to 5*s.* 6*d.*, under 30*s.*		D
Contingencies new bill		E
Ditto on lease to South East, &c.—perpetuities		F
Profits unspecified		

Now, supposing 1 per cent. guarantee consideration shares were created in the Dover, assigned on the Greenwich property—say, for every *two Preference* shares with shares—the average payment on money capital of which is £13 17*s.* 10*d.* per share, one and an eighth 1 per cent. share was given; or, to pay the interest, or more, on the unpreferred, one and a quarter, or one and a fifth, share was given.

For every three Unpreferred shares, the average payment on money capital of which is £13 13*s.* 8*d.* per share, one and an eighth 1 per cent. share was given.

The average of the three shares is £13 15*s.* 5*d.* The perspective division of income, when there were all developed, might be arranged by voluntary modes amongst, or settlement, of a share of profits, as might be agreed.

Take A at £1,000 per annum.

B at	1,000	
C at	1,000	Early, and, probably, C would equal theirs, about, the
D at	4,000	

This would leave the last *four* eighth profit to the Dover, and an undivided passenger, toll free, to North Kent. This would receive equitable value to the above property of the Greenwich Railway—namely, £20 for the Preference £20 shares, and £13 12*s.* for the Unpreferred shares of £13 12*s.* 9*d.* average.

41, Threadneedle street, Aug. 31. R. B. Schumacher, Esqre. Bristol.

P.S.—The preceding values are in proportion to Brothers and Sisters 5 per cent. shares.—R. B. S.

COAL TRADE, AND DURHAM AND SUNDERLAND RAILWAY.

Sir,—The Coal Trade Committee, in their usual weekly return for Saturday, the 17th inst., reported the whole of the collieries of Northumberland and Durham as in full work. This will have a cheering effect upon the several railways, and upon none more so than the Durham and Sunderland line, the dividend upon which for the present half year must inevitably be small; but, as all the arrears of coals will now be brought down the line, the shareholders will not be losers by the miners's strike, but will receive the full amount at the next half yearly dividend. C. W. Dunbrooke.

Newcastle-upon-Tyne, Aug. 28.

CAPTAIN WARNER'S INVENTION.—(Continuation).

Sir,—I have still in my former communication that our Government possesses the unenviable pre-eminence of carelessness and indifference to the sacred claims of science, and the fate of scientific men—who have adorned their country, and benefitted their species. Sir David Brewster, in his *Martyrs of Science*, speaks on this wise, in reference to the neglect of the past, and the "worthless" of science, "a long list of distinguished characters, whom England has starved and discouraged"—"as very unfortunate perception of our morals. Future contemporary sometimes supervenes; and when ages have rolled on, successively have been created in the memories of those which in life they neglected, and suffered to die, "unbounded and unmerited"—they cannot them bread, but gave them a stone! To that Number of shameful, the late John Dalton, they now vote the testimonial of a public funeral—the man to whom Government awarded the miserable pittance of 150*l.* a year! and that, too, when left to life. The Prussian Lind in, indeed, a truly princely request. The widow of Sir Charles Bell has 300*l.* a year, while the widow of the late Mr. Dreamond (private secretary to Sir Robert Peel) receives 300*l.* a year!—the trouble bestowed on the world of mind by the merchant of the late Mr. Dreamond may have been signal, but the public is not cognizant of any such fact. The previous bestowed on the Mrs. Hamilton, Mr. Grote, Dr. Fleming, and Dr. Robert Brown, have been well received and widely gifted, though these societies have been sufficiently meagre. That profound and accomplished mathematician, the Mrs. Hamilton, deserves well and, a year—while Lady Dale (the wife of "the Master of Judgment"), obtains a pension of 300*l.* annually! Nobody denies the merit of this boon, or the justice of the award; it is the investment and liberality our engineers given the pecuniary advantage and pensions, over the achievements of science and the cause of mind. Mr. Babbage may well say, "This is not a very sensible age"—and probably will certainly so view it. Sir Robert Peel seemed his opinion, on a memorable occasion, to be, that science should be left to itself, and pensioned by the decision for its own sake—that, in short, its utmost progress should contain it; and that the only objects which the "King should delight to honour" were the attainer of the every and ordinary and vulgar! I remember that this commonplace declaration was first pointed out to me by Mr. Cowan of Musselburgh, an honest and benevolent man (albeit, unwisely sceptical in the matter of his own) employed; and, with that being action which happens to paraphrase and astonishing an avowal. Whatever, in his *Sketches of the Inductive Sciences*, whether to the same Sage, forgetting that Sir Isaac Newton was in the receipt of a pension. More there is the case of the sciences a provision, which there ought to be, in reference to those who devote their lives to the well-being of their species, something "more permanent," the world would benefit so much the more from their observations.

The *disputations* in Parliament are quite a curiosity in their way, so far as the question of Captain Warner's invention is concerned. According to Capt. Pechell, the invention was offered to the Prussian Government. This assertion Captain Warner flatly denies—and we have a right to believe him; but if, as is asserted, the Admiralty has "treated the matter with indifference, neglect, and contempt," no marvel if Capt. Warner should look to some other source for remuneration. It is said, that he always had more up eye to the *monied* department than to the *scientific* department (!) of Government; pray, where is this "scientific department" to be found?—as echo repeats the question "Where?" In his George Cruikshank one of these cynosures who would have it that the *John o'Gaunt* was blown up with *nitrate of silver*?—In answer to all these sage speculations, Captain Warner says, "Do, and do likewise." Lord Ingestre seems to view the matter more dispassionately than any other, and I will add, too, more in a scientific spirit, and a right mind.

Nothing can, *prima facie*, be more clear than the fact, that Capt. Warner is in possession of a terrible agent of destruction—more like the scenery of Heaven than what is usually wielded by man on earth—"*Mira fulminis opera sunt.*" In the previous experiments at Woolwich, it was admitted by Sir R. Peel himself, who witnessed them, that Capt. Warner did possess some formidable means of destruction. The only question that can arise must refer to the *transport* of the engine of destruction, whatever it may be, from the steamer to the *John o'Gaunt*. I consider the supposition that the agent of destruction was *concealed* on board the *John o'Gaunt*, altogether absurd; it is peremptorily contradicted by Capt. Warner, and *repudiated* by the circumstances of the case. The signal for destruction was not *pronounced*—it was altogether independent of Capt. Warner; and it was promptly obeyed. It is and likely to have been a *projectile*, but to have been conveyed to the doomed vessel by some other means; and that a shell, replenished with formidable elements of explosion, was ignited, at the required signal, by voltaic electricity, seems to me the most probable state of the case. I believe, with Lord Ingestre, that it was a *bona fide* experiment—and, to treat it with ridicule, and call it "humbug," argues no very sensible powers of mind.

I do not spoke these remarks in any *political* spirit, for I never meddle with politics, but simply as the advocate of the rights of science; and it seemed to me necessary to show that my previously expressed opinion is certainly not changed by anything which has since transpired in Parliament. The conduct of the Admiralty in the case of Captain Warner is of a piece with the rest, and those who have, as well as myself, had to do with the Admiralty cannot feel surprised. When I submitted my shipwreck apparatus, and proposed, twenty years ago, a remedy for the dry-rot, I met with the same superlicious neglect and contempt, though the latter is the very process since adopted. When Captain Sir John Ross was prepared to be hermetically sealed up in the icy regions of the north, and lost to the world, if was private benevolence which supplied the means of search for his recovery. It was private benevolence, too, which lately supplied the means to determine the fate of Stoddart and Connolly, murdered by the barbarous Ameer of Bokhara, and the righteous spirit of a pure philanthropy induced a private individual to put his life in jeopardy with this view—and can it be doubted but that Government might have, with its due influence, saved these men from destruction years ago? It is, therefore, not without reason, that your facetious contemporary, *Punch*, has directed his keen satire and pungent wit against the neglect of science, and *sycophancy* in "high places"—ably directed, as it ever is, against the eccentricities and follies of a frivolous age.

I prepare the iodide of nitrogen by leaving iodine in strong ammonia for, say, twenty-four hours; a less time will do, but I prefer the lengthened period. I then remove the *iodide* by means of a platinum spoon, and place it on slips of blotting paper in small portions. A few hours will suffice for its being dried, when it may *explode* spontaneously, or the contact of a dip of paper will cause its explosion, and even its being let fall through the atmosphere. The separation of its elements, in the act of explosion, is accompanied by a flash of light, and that explosive force is very violent. I find that when I touch it with a little of the solution of phosphorus in sulphuret of carbon, the latter is instantly ignited on the explosion taking place. In experiments with this substance, everything in the shape of glass must be removed. I see no method of the safe application of the iodide of nitrogen. The bichloride of nitrogen may be made in the following manner, and it is needless to say that the process must be diligently watched:—Into a solution of the nitrate of ammonia, contained in a tinned vessel, about ten inches diameter, and three inches deep—the solution being at a temperature of 110° Fah.—I introduce a bell glass, with a wide mouth and air-tight stopper, replenished with chlorine, prepared on the moment; this is done with a shallow tray of tinned iron. The liquid will presently be found to rise slowly into the inverted bell glass, from the gradual absorption of the chlorine. In the mean time, an oily-looking film pervades the contents, which condenses towards the centre, and falls to the bottom in the form of a liquid globule, about the size of a large pea—if about a pea and a half of chlorine has been used. As soon as the globule falls to the bottom, the stopper is cautiously and gradually withdrawn, the liquid falls to the common level, and the bell glass must be entirely removed, which obviates a source of great danger. If, now, the tip of a rod dipped into oil of vitriol, or a bit of camphorine, naptha, &c., be brought into contact, it explodes with great violence, and the fumes with phosphorus is very formidable. On one occasion, the steel blade which was used in the experiment was shivered to atoms, and in another instance the tin canister was torn to fragments, which were imbedded in the ceiling, and the table on which it rested shattered to pieces. These were among my most dangerous experiments with this terrific compound; neighbours of curious disposition fear of explosions. It is not likely that *liquid* carbonic acid has been used by Captain Warner, for the change of temperature, amounting only to a very few degrees, might cause an explosion of fearful force.

The history of the telescoping mercury, as given in the *Mining Journal*, is only another version of what Mr. Wilkinson (of Hull) had many months ago sent to the *Philosophical Journal*. Its power under pressure is very terrible; it is used now generally as "percussion caps," as a substitute for the "percussion powder" formerly employed, which I was among the first to recommend; it ignites at a temperature not much above 200° Fahrenheit, which forms a chief source of danger in the use. When simply heated, it merely flashes like gunpowder, but does not detonate; when a portion of it is put on glass plate and ignited, it imparts to the produce of the glass a brilliant blue of extreme intensity, forming a pretty science, and I find also that if a little be placed on a slip of paper, and held over the flame of a spirit lamp, it inflames; the paper is not charred, neither is it perforated, which happens always in the case of other explosive compounds. J. Murray.

August 31.

STEAM-BOILER EXPLOSIONS.

Sir,—I observe in your paper of last week a report of a steam-boiler explosion, at Wigan, by which two lives were lost. It appears that the boiler was a circular one, and that there had been a similar catastrophe a few months before; one man by the last-mentioned occurrence received several serious injuries, and the engine sustained considerable damage; on the more recent occasion, one man and a little boy, who had taken breakfast to his father, were severely scalded, and are since dead; the injury done to the engine is very great—the spring beam and quides broken, and the parallel motion gramps and pistons rods much twisted. It also appears that there was one safety valve only two inches in diameter to the two boilers, and this on or in the steam pipe connecting the engine and the boiler. These were facts stated at the inquest held on the bodies of the deceased, before a coroner and jury of the district, under the jury. Now, to prevent such cases and loss of life and property, a more ample consideration seems self-evident, and the remedy seems almost that the power to prevent exceed the power of the boiler, the spring being overloaded by sentinel or weighted levers; others recommend the adoption of other expedients; and some for the alteration of situation of the steam-light valve. One thing is certain—that the valves used are not sufficient to prevent explosions, by negligence, design, or miscalculation of any adverse circumstances, which should be guarded against. I suppose that the safety valve shall be accessible only through the instrumentality of a key, to be kept by the engineer, or master engineman. That such valve, instead of being the support of a cone or cylinder falling into it when the *devil*, shall be like the letter O, fitting a piece of brass or leather, the greatest part of the steel valve only resting, and much smaller part to be a mere line, imparting elasticity or reversal the strength, with a small place over it, and instead of leverage a long rod for weights, with holes in them to put on, and kept under a sliding tube cage, or a wooden or iron box, so constructed as to suit the steam, without allowing any person or thing to touch the valve from without, except in the presence of the locked cover.—*Newcastle, August 31.* C. J. J. Murray.

Railway.—A short time since, Mr. Laing, of Dundee, exhibited a beautiful model of his invention, to a select party of scientific and other gentlemen, in the Workmen's Hall, North Hanover street, Glasgow. After shewing the model of the atmospheric railway in operation, Mr. Laing gave a clear and succinct exposition of the principle by the application of which the pressure of the atmosphere is made available to the propulsion of locomotives. He then entered fully into the question as to the most suitable agent to be employed by the force of accumulative pressure as a railway, and stated that he had no doubt but that a speed of fifty or sixty miles an hour might be obtained. He illustrated this part of his observations by placing a light in an air-tight tube, which, having exhausted of the air it previously, by quickly connecting the interior from one end of it, and admitting the atmosphere, the ball was propelled through the other end, which was open, and against the opposite wall with great force. The closure of the experiment called forth the warmest congratulations of the gentlemen present. Several other interesting experiments were exhibited; and the Lord Provost, on taking his leave, expressed the high delight and gratification (which he, in common with all present, had experienced).

MINING IN CORNWALL—SETTING DAY.

The Cornish miner, of the old sort, loves his "bal" as a sailor loves his ship, and begins to suspect its infallibility, like him, when the rats leave it. He knows every corner of its nicest chambers, and he can speculate on the riches of a lode at a point which it may take years of labour to arrive at. He will cling to the *belief*, and should he die—which, poor fellow, he is likely to do at forty-three or four—the assertion of the old man or uncle Tre, or Trenethick, as all his relations will call him, is remembered by his children. When the pike reaches the spot, ten to one but his prognostication is correct, and so doubting is the learning of the owner, that that gentleman gladly asks the old man's opinions when he wants to be safe. In this respect there is a broad distinction between the miner of *different districts*; it can, however, be accounted for. It is the interest of the Cornish miner to be acquainted with the state of his mine, and its likely deposit of riches, for he has a *tribute* from the store it yields. He is called a tributer, because he and his corps partake with the adventurers of the good that is landed "at grass" through his exertions. He will have so much out of every sack of tin-stuff—the absolute tin extracted from the ore that is taken from the mine and sent to the smelter; he has a regular *debtor* and *creditor* account with the adventurers, and bargains to that effect. Thus, we give a copy of a bargain entered into by the party of miners with the captain on the "setting-day," or day of setting. The bargains are taken at the "settings," which happen once a month, on the blank carcase, perhaps by the seashore, or on the rocky waste, where the primitive rocks have stared high heaven in the face for ages; and a very picturesque sight it is. A brawny captain, standing on a crag, with about 200 miners round him, the only living creatures, except crows, for many miles of the spot. There is work to be done beneath the spot where they stand, and numbers have come from a distance to the *setting*. Many have got an itching to work upon the lode that has just been sunk upon, and the bold captain, on his primitive rostrum, is perfectly aware that anything he may say for or against the riches of the locality is all useless—Uncle Tom Trelaze, or Pascoe, or Penaluna, or any of the Fe's, or Tre's, or Pen's, has handed down tales of that particular "lode," and that is enough. The same tale has induced adventurers to "open the shaft;" they have found cash, the labourers have come to furnish labour, and to receive a *tribute* of the exported good, as well as wages.

Fancy, then, a cluster of rough-looking creatures, in strange costumes, all of strange colour—according to the district they have been working in—from a livid blue to the colour of bal ammoniac—from saffron yellow to the white of pipe clay, standing around an elevated figure, who reads aloud "the rules of this mine," a code to which the neighbouring bunch will appeal if it should chance to fall out that a dispute beyond their power of settling should arise, it being perfectly understood that the bargains entered into are to be subject to the rules. The captain calls aloud the *first bargain*: *Now, men, to sink Trainor's shaft*—the shaft named, perhaps, after the most munificent subscriber to the funds—*under the ten fathom level upon the course of the lode upon tribute—the men to find their own materials, watching, &c.* "Who is to pay for repairing the collar of the shaft?" cries out a wary one. "The adventurers will allow 40s." is the reply. Fifteen pounds a fathom is the *first* bidding from one of the men, 13 says another, 12, 9, 8, 7, 6, are successively repeated. A stone has been thrown up in the *six as 7* was uttered, *six is pronounced before it touches the ground*; he who uttered the word is the *taker of the bargain*, as would the answer of 5 had it been spoken before the final fall of the stone. That would have been too low, however, and in this Dutch auction there is an understanding not to lower the bargains too much. All are satisfied. Thus the bargain is finally taken at 6*l.*, or 120*s.* as the miners reckon, with an understanding that a certain portion of the tin got should belong to the men who have to work it. Other bargains are set, and perhaps fifty or sixty men may get employment on the mine, while the rest go for a chance at other settings. If it is a new *adventure*, the huts are soon up, candles, coal for the smith, gunpowder, and other matters are soon sent for to Redruth, Truro, Penzance, or elsewhere. At the end of the first fortnight, *sist.* or subsist day arrives, and each man is advanced a pound, more or less, to single or married, and at the end of the month the amount of the men will stand as follows upon a printed paper, called a "bal bill," probably from its being the document on which they depend for the bal, or balance, of their account. Cornish people doubt this derivation, but as they give no other it may stand:—

WHEAL FORTUNE MINE.

FUTURAE AND TRIBUTE PAY.

For May. *Jacob Caddy and Pair.* 18 .

Rocking Trelaze's shaft six fathoms, at 100*s.*			£30 0 0
Working on the mine			1 0 0
Repairing the cobar of the shaft			2 0 0
Candles			2 0 0
Candles	£0 12 0		
Powder	0 10 0		
Safety rods	0 12 0		
Barrows	0 10 0		
Shovels	0 12 0		
Coal	0 2 0		
Nails	0 2 0		
Smith's coal	1 0 0		
Drawing	1 1 0		
Timber and slab	0 15 0		
Wax-cloth	0 1 0		
Lucky	0 2 0		
Subsist	0 0 0		
	£6 7 0		£42 0 0
Bal			£35 5 0

Thus, it will be seen, that these eight men have earned 42*l.* 10*s.*, including their share, or "tribute," of the tin obtained in the bargain. They have had advanced to them, at the end of the first fortnight, *sist.*, or money instalment, 6*l.*, which, with materials, smith's account, &c., amounted to 15*l.* 7*s.* 6*d.*, leaving a balance in their favour of 35*l.* 5*s.* 6*d.*, which the *taker*, J. Caddy, receives at the count-house, a hut built of double boarding, filled up with mould, and the party return into some rocky nook near the mine, in order to divide it in their own way. Simple as these proceedings are at the commencement of a mining speculation, in a few months, when a towering stack and a 60-inch cylinder shall mark the spot upon the corner where a flourishing mine gives employment to 400 men, the principle is the same. The warm plains and the bleak hills soon show signs of culture, and the mine works eight hours underground for his employers, and eight at grass for himself, on a little bit of land which he cultivates under disadvantages not known in other parts of England.

MANUFACTURE OF MACHINERY ON THE CONTINENT.—A letter from Berlin, published by the *Paris Commerce*, states that much dissatisfaction was felt in Prussia in general, and especially among those connected with the iron trade in and about the capital, with the conduct of the commercial authorities of the Government, in establishing manufactories for the construction of locomotives and iron machines of all sorts—their embarking in a competition with private manufactures, which the latter, it is stated, will not be able to undersell. The agency of maritime transactions was solely thought worthy under Government sanction and administration—has accounted that arrangements have been made by it for the construction of all manner of metallic machines, which are to come in competition with those of private establishments. The agency, it is stated, has, from its formation, peculiar facilities in borrowing money cheaply, while the common rate of interest is high. The most serious consequences to private industry and enterprise, to the Prussian iron manufacture, are predicted from this step.

THE POMEROY STORES OF THE NORTH.—We have received the following circular, which has just been issued from the coal trade office, and which needs no comment from us:—"The special committee have the satisfaction to inform the trade, that the whole of the collieries in these districts, with very unimportant exceptions, have engaged all the workmen they require, these engagements having been formed on the terms and conditions offered by the coalowners previous to the 5th April last."

LARGE RAILWAY MILL IN AMERICA.—The *Scientific American* says, that the Montreal Iron Company are about erecting, at that place, a rolling mill, which will be the largest and most extensive establishment of the kind in the United States, and which will probably cost £200,000. It is calculated that it will turn out annually about 10,000 tons of manufactured iron, a large portion of which is to be railroad iron; it will contain twenty two puddling furnaces, common all the iron manufactured at the Novelties of the same company, give employment, directly and indirectly, to almost 500 hands, and is to go into operation early next spring.

MINING CORRESPONDENCE.

ENGLISH MINES.

HOLMBUSH MINING COMPANY.

August 19.—In the sump winze sinking below the 110 fathom level the lode is divided—the north part now sinking on is about eight inches wide, and worth about 6*l.* per fathom; the south part is fourteen inches wide, and worth 12*l.* per fathom; in the eastern winze the lode is fifteen inches wide, and worth 12*l.* per fathom; the middle winze is sunk sufficiently deep for a 120 fathom level, and we have just commenced driving west from it. In the stopes in the back of the 110 fathom level, east of Michell's winze, the lode is fifteen inches wide, and worth 20*l.* per fathom; west of ditto the lode is two feet wide, and worth 46*l.* per fathom; in the stopes east and west of Goldsworthy's winze the lode is one foot wide, and worth 12*l.* per fathom. In the 100 fathom level, west of Hitchins's shaft, the ground continues favourable; east of Michell's winze the lode continues small and unproductive; east of Wall's shaft the lode is small and poor; the Flapjack lode is about fifteen inches wide, composed of copel, spar, and mundic; the lode in the eastern stopes, in the back of this level, is one foot wide, and worth 10*l.* per fathom; in the stopes east of Dancy's winze the lode is fourteen inches wide, and worth 10*l.* per fathom; in the stopes east of Hooper's rise the lode is one foot wide, and worth 11*l.* per fathom; the lode in the rise, in the back of this level, is one foot wide, and worth 10*l.* per fathom. In the seventy fathom level, west of Hitchins's shaft, the lode is eight inches wide, composed of copel, spar, and mundic, with stones of ore; in the stopes in the back of this level the lode is one foot wide, and worth 14*l.* per fathom. In the winze sinking below the eighty fathom level, east of the south cross-cut, the lode is nine inches wide, producing a little ore. The pitches are much improved.—The lead lode, at the sixty-two fathom level, is without alteration; still about six inches wide, with spots of lead. T. RICHARDS.

UNITED HILLS MINING COMPANY.

August 20.—In Williams's shaft there is no alteration. In the rise in the seventy fathom level, in the eastern shaft, the lode is three feet wide, ore of good quality; in the western end the lode is five feet wide, producing some good ore, rather improved since last week. In the sixty fathom level, east of eastern shaft, the lode is eighteen inches wide, producing some ore of good quality. West of James's the lode is two feet wide, producing but little ore. In Webber's winze the lode is four and a half feet wide, two feet on the south part of which is good ore. In James's shaft the lode is four feet wide, very throughout, of low quality. The eastern shaft is still sinking in the country to the north of the lode, and no alteration in the ground. In the fifty fathom level the south cross-cut is in favourable ground. In Wheal Sparrow, at the fifty fathom level, in driving the cross-cut south, the ground is much the same as when reported last week. At the forty fathom level, in the eastern end, the lode is fifteen inches wide, eight inches ore of good quality; in the western end the lode is two and a half feet wide, producing some good ore, of promising appearance. At the twenty fathom level, on Stacey's lode, east of middle cross-cut, the lode is six inches wide, ore of good quality; west of ditto the lode is fifteen inches wide, nine inches ore of fair quality. In the ten fathom level, east of Turner's shaft, the lode is one foot wide, four inches good ore; in the ten fathom level, on Stacey's lode, no lode broken during the past week. N. LANGDON. T. TREVENEN.

LEWIS MINING COMPANY.

August 19.—I beg to inform you that, by driving south at the deep adit, we have intersected Wheal Providence lode; it is about two feet wide, composed of spar, gossan, and mundic—much the same in appearance as we have seen it in other places at the same depth. Kushey's lode, at the ten and twenty fathom levels, though kindly, with some ores, is not likely to produce much at the present depth; we are, therefore, preparing to sink the engine shaft below the twenty fathom level. At Treven we are still driving a cross-cut south, and expecting to cut Kushey's lode in that part of the mine in a short time; we are driving west on Treven lode, which is about nine inches wide, producing good stones of ore, with some lead and mundic—a very kindly lode. At Wheal Nut we hope to commence building the engine-house in three or four days; we calculate to get the house up in seven weeks, and get the engine to work in three months from the present date. S. NOEL.

TINCROFT MINING COMPANY.

August 19.—I beg to hand you my report of the state of this mine. The lode in the eighty fathom level east is two and a half feet wide, producing some good quality ore, worth 10*l.* per fathom, and likely to improve; the west end, same level, is passing through a cross-course. The lode in the seventy east is two feet wide, very throughout, worth 8*l.* per fathom; the lode in the seventy west is three feet wide, half the width good quality yellow ore, the other half chiefly mundic; the end is worth about 20*l.* per fathom, leaving good back and bottom. The sixty east is producing some ore, and kindly; the west end, same level, is at present unproductive. The fifty east is producing some ores, and kindly; the lode in the west end, same level, is twenty inches wide, worth 10*l.* per fathom. The different winzes are yielding ores, and laying open ground that will work at moderate tribute. At Palmer's shaft we are raising some ores from the seventy five west, though the lode at present appears split into branches. The lode in the winze, under the sixty-five, is two feet wide, worth 11*l.* per fathom. The fifty-five cross-cut north has got through the limestone; we expect to find the lode there very soon. Our pitches in the south mine are yielding fair quality work for tin and copper ore. Our tribute department throughout continues to look favourable, and I am glad to say that, on the whole, our prospects are very encouraging.

WILLIAM PAUL.

CORNUBIAN MINING COMPANY.

August 19.—Mumby's engine-shaft is sunk seven feet below the seventy-eight fathom level; we shall soon commence putting in bearers, cisterns, &c., for hoisting the present lift; this, besides getting down another as a sinking lift, will require the week to complete. The seventy-eight fathom level west, on Chiverton lode, is in a soft and good channel of ground; the lode is two feet wide, of a promising appearance; after driving two or three fathoms more, we calculate having the run of lode, which has proved very productive at the levels above; the ground in the west cross-cut, at this level, is a little improved; we expect to see the north lode in a few days; the eastern cross-cut is rather slow to drive, but the ground is of that character as is now proving very congenial to the north lode in the level above; we shall effect a communication to this level in two or three days, by a winze sinking from the seventy on Chiverton lode. The pitches in the bottom of this level, on the north lode, both east and west, are producing good quantities of work, and look very encouraging; we are strongly of opinion that other cross-cutting and laying open this lode in different directions, at the bottom, or seventy-eight fathom level, that ample and improved returns will be realized. The seventy fathom level, driving south, to the east of great engine shaft, is passing through favourable strata and killas ground; we expect about two fathoms further driving will intersect the south lode. Hosken's shaft, at Vreshoniggo, is sunk about six fathoms below the two fathom level; the ground is improved. The lode in the two fathom level west is one foot wide, a little lead. The adit end west is worth the same as reported for some time, unproductive. The eastern lode, located in the western part of the set, I am impressed will be found, when prosecuted, a great improvement to this part of the mine, reckoning on the good effects which have been produced by cunning lodes in lead mines. R. HOSKEN.

TAMAR SILVER-LEAD MINING COMPANY.

August 19.—In the 120 fathom level, the lode is eighteen inches wide, carrying a small branch of ore. In the 110 fathom level, the lode is two feet wide, one foot of which is good work. In the 100 fathom level, the lode is one foot wide, producing ores of a good quality. In the ninety-five fathom level the lode is eighteen inches wide, one foot of which is rich work for silver-lead ores. In the eighty five fathom level the lode is six inches wide, at present poor. In the seventy-five fathom level the lode is eighteen inches wide, producing some good stones of ore. In the sixty five fathom level the lode is three feet wide, with a small quantity of ore. In the fifty five fathom level the lode is two feet wide, seeing work, but not rich. In the forty five fathom level the lode is nine inches wide, good seeing work. In the thirty-five fathom level the lode is two and a half feet wide, one foot of which is seeing work. The machine plane shaft is sunk six fathoms. Below the forty-five fathom level, on the Indian, I am happy to say we are getting on very well in laying the railroad in the incline shaft, and we expect in the course of three weeks to be clearing the labourers' work from the forty five fathom level. At the north mine, in the fifty fathom level, south of the shaft, the lode is one foot wide, producing good stones of ore; at the seven level north, the lode is two feet wide, interspersed with silver lead ore, but not rich. At the forty fathom level south, the lode is two feet wide, unproductive; at the same level north, the lode is one foot wide, with a small quantity of ore. At the thirty fathom level, north of the shaft, the lode is two feet wide, good seeing work. At Wheal Mammoth the ground in the engine shaft still continues [illegible] for sinking. J. STRATTON.

DESPRAD UNITED MINING COMPANY.

August 21.—At Wheal Margaret, the lode in the fifty-eight fathom level east is 2*ft.* four inches wide, worth 10*l.* per fathom; in this level west no lode has been seen since forty years last August. In the forty seven fathom level east the lode is 2*ft.* and a half feet wide, worth 14*l.* per fathom; the lode in the winze sunk 9*ft.* low this level is worth 9*l.* per fathom; in this level west the lode is two feet wide, worth 10*l.* per fathom. In the thirty five fathom level east the lode is two and a half feet wide, worth 9*l.* per fathom; the lode in the winze sinking below this level is two feet wide, worth 11*l.* per fathom. The pitches remain without alteration. The lode in the deep adit level is eighteen inches wide, composed of spar, mundic, and stones of ore.—At Ding Dong, there is no alteration since last report.—In my drawing department we are proceeding with all possible vigour; and I am happy to say, that our next sampling will be six tons, instead of 4 as now, as first announced on.

J. PHILLIPS.

WEST WHEAL JEWEL MINING ASSOCIATION.

August 19.—The lode in the 160 fathom level, east on Wheal Jewel lode, is fifteen inches wide—spar, mundic, and stones of ore. The eighty-five fathom level east on same lode is still worth 20*l.* per fathom; the same level west on ditto is worth 15*l.* per fathom; the ground in the eighty-five fathom level cross-cut north is very favourable for driving. In the fifty seven fathom level east on Buckingham's lode, the lode is worth 5*l.* per fathom. There has been no lode taken down in any other part of our mine since our last.

S. LEAN. R. JOHNS.

TRELEIGH CONSOLS MINING COMPANY.

August 19.—In the sump winze below the eighty the lode is worth 10*l.* per fathom. In the sixty west of Gardon's shaft the lode consists of spar, joch, and mundic. In Good Fortune sump shaft the lode is three and a half feet wide, producing a small quantity of ore. In the sixty fathom level west of ditto, the lode is three feet wide, with stones of ore; in the same level east the lode is two and a half feet wide, unproductive. In the fifty west of ditto the lode is two feet wide, worth 10*l.* per fathom; in the winze below the fifty west the lode is large and capelly, very little ore. In Symons's shaft below the forty-four fathom level the lode is twenty inches wide, worth 10*l.* per fathom; in the forty-four west of ditto the lode is two feet wide, worth 12*l.* per fathom. In the thirty-four west of ditto the lode is twenty inches wide, a very promising end, but little ore. In the twenty fathom level west of Symons's shaft the lode is three feet wide, unproductive; in the adit level west of ditto the lode is twenty inches wide, no mineral. W. SYMONS.

CALLINGTON MINING COMPANY.

August 19.—At the north mine, the lode in the eighty fathom level driving south is producing silver-lead ores, and laying open tribute ground; the same may be said of the lode in the seventy. The sixty fathom level is progressing in a satisfactory manner—the lode is about one foot big, good quality work. In the fifty the branches are uniting, and the lode has a very promising appearance. In the forty we are discovering tribute ground.—At the south mine, in the eighty and seventy fathom levels, we are driving through ground which will work at a moderate tribute. In the sixty fathom level the lode continues to produce silver-lead ores. Our tribute pitches continue to look well. J. T. PHILLIPS.

GREAT WHEAL MARTHA CONSOLIDATED MINES.

August 17.—The men in the sixty fathom level east have been engaged during this week in fixing the shaft work, preparatory to driving at the seventy; in the same level, going west, the lode is still five feet wide, and very throughout. In the fifty fathom level west the lode is five feet wide, composed of mundic, copel, and copper—a very promising lode indeed. In driving the cross cut at the forty we are progressing in a satisfactory manner. At the lower mine, Thomas's shaft is now sunk under the ten fathom level 3 fms. 4 ft.; in the ten fathom level, going east, the lode is four feet wide, composed of mundic and copper ore. The deep adit is now driven ten fathoms.

THOMAS PENALUNA.

CONSOLIDATED TRETOIL MINING COMPANY.

August 19.—The lode in the sixty fathom level, west of Heawood's shaft, is six inches wide, producing a little ore; the lode in the sixty fathom level, east of Heawood's shaft, is nine inches wide, tribute ground. The lode in the fifty fathom level, west of Williams's shaft, is one foot wide, tribute ground. The lode in the forty fathom level, east of Heawood's shaft, is fifteen inches wide, producing some good ore. We have sampled this day 160 tons of ore. H. WILLIAMS. J. MORCOM.

HANSON MINING COMPANY.

August 19.—We are still sinking Hanson's engine-shaft in favourable ground—now down eight fathoms below the thirty-one. The lode in the thirty-one east and west continues very kindly, yet unproductive. The lode in the twenty-one east and west is also very kindly, composed of mundic, soft spar, and peach, but little ore. The same may be said of the twelve fathom level, east of Garden shaft—indeed, at the different levels, the lode is as kindly as can be expected, without ore. We have not as yet succeeded in purchasing an engine to work Stainsby's lode. Z. WILLIAMS.

COOK'S KITCHEN MINE.

August 17.—In the eastern shaft, sinking under the sixty fathom level, on North Tincroft lode, the lode has still a very favourable appearance; we have it three feet wide, very good for ore, but no south wall yet; there is no alteration in the sixty fathom level east and west on this lode. We expect by our next survey day to hole the seventy west of the fair rest winze. The lode in the new east shaft, sinking under the eighty-two fathom level, on Rushey's lode, is much the same as last reported. We expect by the latter part of next week the winze under the seventy two will be holed to the rise in the back of the eighty-two, which will be a great advantage for setting tribute ground. The south sump shaft is now at the 170 fathom level; we have commenced driving west to communicate with a winze sunk forty fathoms further west at the 160, where we cross ten fathoms in a good lode for tin. The 160 west on this lode is stopped for the present, having a tribute pitch working in the back at 7*s.* 7*d.* to the 11, and doing well. We have commenced sinking a winze in the bottom of the 160, five fathoms further west than the present end, which, when holed, will enable us to set tribute ground. We set a new shaft to sink the early part of the week within sixty fathoms of our south boundary, at 30*s.* for five fathoms; after having sunk about two fathoms, we cut a very fine lode for tin, which has the most promising appearance that I have seen in the mine for many years. A. BUDDY.

The following report has been addressed to R. H. Pike, Esq.

August 17.—I am happy to inform you there is a pleasing change in the new lode, which we have just commenced on, and which you saw when you were last here; there is a very fine lode, cut about two fathoms under the surface, and every appearance of its being a productive one; the men brought up a sieve from the lode yesterday, about 3 cwt., and we took a fair sample, which made a produce of 10 cwt. black tin per 100 cwts., and which makes white tin of very superior quality; Capt. Rodey says he has not seen such a promising lode in Cook's Kitchen for the last twenty years. I beg to state that I have written this to you, as being Capt. Rodey's private opinion, which is, of course, my only guide. W. HOSKINGS.

MINE ACCIDENTS.

In reference to the accident at Messrs. Bagnall's coal-pit, noticed in last week's *Journal*, we are requested to publish the following judicious observations made by the coroner at the inquest on the unfortunate sufferer:—One of the witnesses (a man who had practically escaped), in the course of his evidence, declared, "that had the safety lamp (one of which was in the pit) been used, the accident would not have occurred;" the coroner then said—"He wished to impress on all those engaged in coal pits, the necessity of using the lamps, whether they suspect danger or not. In the present instance, it would seem the terrible accident had been really occasioned by carelessness and neglect on the part of the poor sufferers themselves. Means, Bagnall had, he believed, employed the most scientific men and means they could procure, and done all in their power to guard against such occurrences, and it was much to be regretted the workmen did not use the excellent means of protection placed within their reach."—A fire fortunately to occur within the depth of the mine, appears to have been the cause of the accident at Greatbarr Colliery.

Aberdare.—C. Bevan was killed at the Llety Sienyn Colliery.

Dowlais Pits, Dukinfield.—H. Hawkesbury was killed by a fall of coal.

Brumbo.—Great damage was occasioned at the coal works of Hurst Pierce by the bursting of one of the boilers of the engine used in clearing the mine of water—several men were killed, and others much injured.

Derbyshire.—W. Greatorex was killed by a fall of earth at Crich Quarry.

WHEAL ALFRED.—*(From a Correspondent).*—The ore has just been taken for ten years, at 6*s.* in the 1*l.* duce—and, 2 cwts. of the grass produce—a fair remuneration in the events of raising. The adventurers have, nevertheless, to pay for the use of water and all the fuel extra—consequently, the dues being full eight times what they fairly ought to be, so will the value be in proportion.

EXTRAORDINARY COAL WORKS, FIERCELY BY DEAN.—On Tuesday last, at Gloucester, an action was tried relative to this property. Mr. Wilcox, the plaintiff, and Messrs. Nicholls and others for various sums, amounting in the whole to about 1200*l.*, which had been advanced at different times by the plaintiff to the defendants, for the purpose of carrying on their mining operations. They were supported respectively by counsel for the action, and pleaded altogether no less than thirty different pleas. There were no particulars of any nature obtained during the trial, which terminated in a verdict for the plaintiff.

CORNISH IRON WORKS.—Messrs. Grahamsley and Sand have had a contract with the Dowlais Iron Company to build six large blast iron furnaces, with coke ovens, cast houses, &c., besides outrigger and other erections, the whole of which will occupy at least two years. The contractors have 200 men employed—quarrymen, masons, smiths, labourers, &c. The furnaces are in operation at Cardiff, and four others will shortly be at work.—*Cardiff Chronicle.*

COAL IN CHINA.—The various researches in the neighbourhood of Penin are remarkable for the coal which they produce. The coal-seams are in all, a depth of half a league beneath the surface, without meeting with one single fault, either because of this very circumstance, or from the extraordinary habit which the Chinese have of leaving all things undisturbed, that the art of mining is yet in infancy amongst them. Machinery or fighting labour is there unknown. They have not even an idea of the proper inflammability to draw off the water, if local circumstances allow, they cut drainage galleries; if not, they abandon the working when the inundation has gained the first spade there. They spare no of unfortunate miners in getting together, at certain distances, coal which they place there turned by cars; but these efforts, though successful to a certain, tolerable very little to meet the demand. The railroads, canals and harbour, are the existing inconveniences, a thread to wound with the plummet, the bucketh is hoisted out driven by with the footmen; and, in this manner, heaps of coal are detached, weighing from 50 lbs. to the. Coal is at a moderate price in the capital.—*Capt. Fleming's Chinese Obs.*

PUBLIC COMPANIES.

MEETINGS.

Monday.—Brecon & Merthyr Railway, at One.
Tuesday.—Great North Swiss Navigation Company, at Two—Edinburgh and Glasgow Railway, at Two.
Wednesday.—South Devon Railway, at Twelve—Thames Haven Dock and Railway, at One—Hayle Railway, at Two.
Thursday.—London and Blackwall Railway, at Twelve—Dublin and Drogheda Railway, at One—Southampton Dock Company, at One—Hungerford and Lambeth Suspension Bridge Company, at One.
Friday.—Dodworth Patent Salt Company, at Two—Yarmouth and Norwich Railway, at One—Consolidated Tintah Mining Company, at One—Chester and Holyhead Railway, at One—Winchester Junction Railway, at One—North Wales Mineral Railway, at Three—St. Philip's Bridge Company, at One.
Saturday.—Hull and Selby Railway, at Twelve.

DIVIDENDS.

Newcastle Banking Co., 7 per cent.—Northern & Eastern R'way scrip, 7s. 6d. p. sh.

CURRENT PRICES OF STOCKS AND SHARES.

STOCK EXCHANGE, *Saturday morning, Twelve o'clock.*

Consols Money, 90¼ ⅝
Consols Account, 90¼ ⅝
New ¾ per Cents., 100¼ ⅜
Reduced ¾ per Cents., 90¾ ⅝
Reduced ¾ per Cents., 100 ⅜
Long Annuities, 12 7-16 9-16
Bank Stock, 198 200
Exchequer Bills, 71 73 pm.
Bengal Bonds, 5 per Ct., 107½ 8½
Brazil, 5 per Cent., 61 64

Danish, 5 per Cent., 99 0
Dutch, 2½ per Cent., 61½ ½
Ditto, 5 per Cent., 104½ ⅝
Portuguese, Time, 5 per Cent., 40½ 42
Russian, 5 per Cents., 110½ 11
Spanish, Actives, 5 per Cent., 22¾ ¾
Ditto, 5 per Cent., 22¾ ¾
Chili, 6 per Cent., 102 4
Colombian, 6 per Cent., 15½ 16
Mexican, 5 per Cent., 30½ ¾

The premium on gold at Paris is 10 per mille, which, at the English Mint price of £3 17s. 10½d. per ounce for standard gold, gives an exchange of 25.20; and the exchange at Paris on London at short being 25 42½, it follows that gold is 0·10 per cent. dearer in London than in Paris.

By advices from Hamburgh the price of gold is 351 per mark, which, at the English Mint price of £3 17s. 10½d. per ounce for standard gold, gives an exchange of 13·9½; and the exchange at Hamburgh on London at short being 13·8½, it follows that gold is 0·11 per cent. dearer in Hamburgh than in London.

[From our own correspondents.]

LATEST PRICES OF IRISH STOCKS.—5 per Cent. Consols, 99¾ to 100.; 5¼ Stock, 105.; Bank Stock, 1865, 1015.; 3½ per Cent. Debentures, 94.; Bank Stock, 20l. — Kingstown Railway, 10½½.; Dublin and Drogheda, 74¼.—Hibernian Bank, 21.; Royal Bank, 115.; National Bank, 103.— City of Dublin Steam Co., 103½.; Union Stock, 1.000, 51.; British and Irish Steam, 55.—Ocean Ship Building Company, 51¼.—National Insurance Company, 6½.; Patriotic, 2½.—Mining Company of Ireland, 14.; Wicklow Copper Mines, 2½.

CURRENT PRICES AT LIVERPOOL.—Thursday Evening.

Stock.	Closing pr.	Below.	Stock.	Closing pr.	Below.
Bansley Junction	47½	48 —	London and Croydon	12	13½ —
Blackburn & Preston	71	80 —	Lond. Brighton & South'n	50	— —
Birming. & Gloucester	100	105 —	100	7	0
Bristol and Exeter	90	95 —	Manch. & Birmingham	105	108 —
Bristol & Gloucester	95	96 —	Manch., Sheff. & Lincoln	110	120 —
Caledonian	4	5½ 5½	Manch. & Southport	85	85 —
Chester & Birkenhead	11	12½ —	Midland Stock	100½	100½ 100
Chester & Holyhead	30	0 —	Newcastle & Carlisle	104½	105 —
Chester & Wrexham	15	25 —	Newcastle & Darlington	80	80 —
Dublin and Belfast	70	75 5½	North British	77	78½ 78
Dublin and Cashel	24	25 —	North Union, Stock A	110	120 —
Dublin & Drogheda	170	180 —	" B	70	75 —
Dundee and Perth	75	75 —	Norwich & Brandon	14	15 —
Eastern Counties	13½	14½ —	Preston and Wyre	10½	12½ —
Edinburgh & Glasgow	87	90 87	St. Helens & Runcorn G.	105	105 105
Edinburgh, L. & Granton	17	17½ —	Sheffield & Manchester	82	84 —
Glasgow, Paisley & Ard.	7	7½ 7½	Shrewsbury & O. Junct.	13	14½ —
Glasgow & S. Western	110	115 —	South Eastern	37½	38 38
Glasgow, Paisley & Kilm.	80	90 —	Trent Valley	95	100 —
Grand Junction	107	110 110	Ulster	87	87½ —
Great North of England	111	115 —	York & N. Midland	107	108½ —
Great Western	57	57½ —	York and Berks	80½	85½ —
Lancaster and Carlisle	14	0 —			
Lancaster & Preston	23	30½ —	Lynn and Ardgeon	1½	2 —
Leeds and Bradford	19	20 —	Orleans, T. & Rouvens	1½	2 —
Liverpool & Manchester	210	215 210	Paris and Lyons	14	15 —
Liverpool & Birmingham	105	110 110	Paris and Orleans	1½	2 —
London & Blackwall	7½	8 —	Sambre & Meuse	10½	11 10
London & North West	97	97½ —	Strasburg and Basle	5½	6½ —
London and Brighton	48	49½ —	Tours and Nantes	1	1 —

14, Castle-street and Stock Exchange, Liverpool. JOHN GREAVES.

LEEDS, Thursday.—Despite the wanton sway of the past week, the share market has remained firm, and prices on the whole have improved. The Birmingham and Gloucester warrants for last half year are just out: the surplus profits will pay a dividend of 10s. per share—the double of what was declared last year at this time. This small amount of dividend, as compared with the price at which the shares were standing, has brought them down from 110l. to 100., a decline which, though it may go further, will be merely temporary, as the enormous increase of traffic, which every week confirms, must eventually counterbalance even the working charges of the "awful expenditure line in England" in this respect—and special bill, if contrived, sought to receive all that has been predicated of the dividend for the current half year.—Edinburgh and Glasgow's have sprung into fitness demands, at 87½ to 90., selling twice over at that. The rise is attributed to the anticipated issue of new shares, for the extension to Stirling and Perth; and this has caused the Scottish Central shares, which had been at par for the last few days, to drop to 7s. 6d. dis.—Great west bonds have also receded to 40½ per share, and for a similar reason, it being reported that a fresh capital will be raised, in connection a line to Hereford and Shrewsbury, to which latter place the York and North Midland now engage to reach from their Scarborough line, the capital raised for the Scarborough branch being sufficient to construct one to the most watering place also.—To complete this memorandum, we must not omit to commemorate the Manchester and Leeds and Darlington Junction shares, the one at 110., and the other at 20l., both elevated in expectation of a new lease—this to purchase the Stanhope line, and that the railway to admit, thus securing the channels through which the Yorkshire traffic flows into Manchester, and fortifying themselves against an invasion.—Lynn and Ely to Brandon line to produce hard coal to 12l. gross, during the week, at which price twenty are tendering.—Dodworth Salt closed at 2l., and Dividends at 10½.—Yarmouths and Norwichs, which suit your contingents, and extend themselves to Ely and Stamford, are, if anything, rather better; the former at 90½., and the latter at 110.—Railways are strong, at 110. to 111., the past traffic improving at the rate of 10,000l. per quarter for the last year—and, indeed, with the exception of nothing turning up, or out, and the French shares, which have generally given the 5l. or 6l. a share dividend, perhaps, to the consternation of Paxton, et. cætera, frightened from their propriety by the grim visages of war—which, we trust, battle we quite again, may have given way to the calm aspect of peace and plenty;—we have but to enquire our usual list of quotations.

Birmingham and Derby	90½	London and Greenwich	6 ½
Birmingham and Gloucester	100	London and North Western	97
Bristol and Exeter	90½	London and Croydon	12½
Eastern Counties (5l.)	13½	Manchester and Leeds	110
Edinburgh and Glasgow	90	Manchester and Birmingham	105
Great Junction	11½	Midland Counties	105½
Great North of England	111	Norwich and Brandon	14½
Great Western	57½	Newcastle and Carlisle	105
Hull and Selby	90	Northern and Eastern	20
Liverpool and Manchester	210	Scottish Central	7½
London and Brighton	49½	Shrewsbury and Birmingham	14½
London and Blackwall	7½	York and North Midland	108
London and Birmingham	108		

S. E. WATSON, Jun. & Co.

HULL, Thursday.—The markets to-day, except for those where pressing circumstances interfere and exert influence, are exceedingly strong and buoyant. The accounts hereon receive from continent increase the possibility of a French war. Hull and Selbys are not quite as good as they were yesterday; Midlands, and Manchester and Leeds, to much regret. The contending and Birmingham and Gloucesters, Yorks, Edinburgh & Glasgow, &c. to-day, the North of England, 115., Hull and Selby, 90., to 91., Leeds and Bradford, 20½.; Leeds and Birmingham, 20½.; Liverpool and Manchester, 210 to 215.; London and Brighton, 49½.; Manchester and Leeds, 110. to 112½.; Midland Stock, 105½.; Newcastle and Carlisle, 105.; Norwich and Brandon, 14½.; Sheffield and Manchester, 82½.; Stockton & Darlington, 85½.; Newcastle and Darlington, 85½.; South Eastern, 38½.; York and North Midland, 108½.; Hull Banking Company, 10. to 6l.; Hull Dock Company, 108½. to ——; and Gas, 20. to 22.; Hull Flax and Cotton Mills, 20l.

GLASGOW, Thursday.—Caledonian Railway, 5½.; Dundee and Arbroath, 27½.; Edinburgh and Glasgow, 90.; Garnkirk and Glasgow, 30.; Glasgow and Ayr, 20.; Glasgow, Paisley, Kilmarnock and Ayr, 80.; Hamilton and Kilsyth, 20½.; Monkland and Kirkintilloch, 32½.; Slamannan, 10.; Wishaw & Coltness, 25½.; Wishaw and Coltness, Stretchlands and Cleland, 6½.; Arbroath Railway, 6½.; Dundee & Perth, 75½.; Glasgow, Dumbarton and Helensburgh, 6½.; Glasgow, Paisley & Greenock, 6½.; Glasgow, Paisley and Ardrossan, 6½.; Monkland & Kirkintilloch, 6½.; Scottish Central, 7½.; Scottish Midland Junction, 6½.; Stirling & Dunfermline, 6½.; Stirling & Kilmarnock, 6½.; Arbroath Harbour, 6½.; Dundee Harbour, 6½.; Glasgow Harbour, 6½.; Leith Harbour, 6½.; Aberdeen Harbour, 6½.; Aberdeen Railway, 6½.; Aberdeen Town and County Bank, 6½.; Aberdeen Commercial Banking Company, 6½.; Aberdeen Union Bank, 6½.; Aberdeen Gas Light Company, 6½.; Aberdeen Water Company, 6½.; Aberdeen Harbour Commissioners, 6½.; Aberdeen Dock Company, 6½.; Aberdeen Shipping Company, 6½.; Aberdeen Steam Navigation Company, 6½.; Aberdeen Fire and Life Insurance, 6½.; Caledonian Fire and Life, 6½.; Scottish Widows, 6½.

BIRMINGHAM, Thursday.—London and Birmingham Railway, 108½ to 109½.; London and Brighton, 49½ to 50½.; London & North Western, 97½ to 98½.; Great Western, 57½ to 58½.; London & Blackwall, 7½ to 8½.; Midland Counties, 105½ to 106½.; Manchester & Leeds, 110½ to 111½.; Birmingham and Derby, 90½ to 91½.; Birmingham & Gloucester, 100½ to 101½.; Bristol and Exeter, 90½ to 91½.; North Midland, 108½ to 109½.; York and North Midland, 108½ to 109½.; Eastern Counties, 13½ to 14½.; London and Croydon, 12½ to 13½.; London and Greenwich, 6½ to 7½.; Norwich and Brandon, 14½ to 15½.; Shrewsbury and Birmingham, 14½ to 15½.; Manchester and Birmingham, 105½ to 106½.; Newcastle and Carlisle, 105½ to 106½.; Scottish Central, 7½ to 8½.; Scottish Midland Junction, 6½ to 7½.; Caledonian, 5½ to 6½.; Edinburgh and Glasgow, 90½ to 91½.; Glasgow, Paisley and Kilmarnock, 80½ to 81½.; Glasgow and South Western, 6½ to 7½.; Stirling and Dunfermline, 6½ to 7½.; Stirling and Kilmarnock, 6½ to 7½.; Arbroath Railway, 6½ to 7½.; Dundee and Arbroath, 6½ to 7½.; Dundee and Perth, 6½ to 7½.; Aberdeen Railway, 6½ to 7½.; Aberdeen Harbour, 6½ to 7½.; Dundee Harbour, 6½ to 7½.; Glasgow Harbour, 6½ to 7½.; Leith Harbour, 6½ to 7½.; Aberdeen Dock, 6½ to 7½.; Aberdeen Shipping Company, 6½ to 7½.; Aberdeen Steam Navigation Company, 6½ to 7½.; Aberdeen Fire and Life Insurance, 6½ to 7½.; Caledonian Fire and Life, 6½ to 7½.; Scottish Widows, 6½ to 7½.

LONDON GAZETTE—BANKRUPTS.

TUESDAY.—J. A. Gray, Bethnal-green, Cornet-player, corner.—J. Bellamy, Blackburn, cloth, Accrington, Lancashire.—A. H. Abel, Fenchurch and Aldersgate, Hosiers, Cripplegate, Oxford-street, Middlesex.—J. Pell, Great Thames-street, ship-chandler.—A. Edwards, Long Acre, Middlesex, brass cock manufacturer.—J. Clegg, Birmingham, ironfounder.

FRIDAY.—J. H. Owen, New Bond-street, Middlesex, dentist.—T. Clark, Aldersgate-street, hat-case maker, Albion-street, Hyde Park, Middlesex, dealer.—A. Bennett, Bath, grocer, Upper Bristol-road, Somersetshire.—T. and S. Bailey, Worcester, tobacco manufacturers.

SALE OF COPPER ORES IN CORNWALL.

Sampled Aug. 7, and sold at Andrew's Hotel, Redruth, Aug. 22.

Mines.	Tons.	Price.	Purchasers.
Treweirne	34 ..	£7 11	6.. Williams.
ditto	61 ..	8 11	6.. Vivian.
ditto	60 ..	8 6	0.. Williams.
ditto	79 ..	8 1	0.. Nevill & Co.
ditto	40 ..	8 1	0.. P. Grenfells.
ditto	36½ ..	8 15	6.. Freemans.
ditto	30½ ..	8 16	6.. Williams.
W. Caradon	91 ..	8 19	0.. Nevill & Co.
ditto	83 ..	8 19	6.. Williams.
ditto	77 ..	9 19	6.. ——
ditto	64½ ..	7 6	6.. English Co.
ditto	48½ ..	7 6	6.. Freemans.
ditto	47 ..	8 3	6.. Vivians.
Trethellan	91 ..	8 8	0.. Williams.
ditto	71 ..	9 19	6.. P. Grenfells.
ditto	39½ ..	9 11	6.. English Co.
ditto	30½ ..	9 11	6.. P. Grenfells.
ditto	30½ ..	9 11	6.. Williams.
ditto	18 ..	6 14	6.. Freemans.

Mines.	Tons.	Price.	Purchasers.
Powey C.	119 ..	4 18	0.. English Co.
ditto	42½ ..	4 19	6.. ——
ditto	42½ ..	4 19	6.. Freemans.
P. Consols	146 ..	6 3	6.. ——
ditto	60 ..	4 1	0.. ——
Holmbush	38 ..	9 17	6.. English Co.
ditto	30 ..	9 19	6.. P. Grenfells.
Pountyndhal	63 ..	4 13	0.. Nevill & Co.
ditto	39 ..	4 4	0.. P. Grenfells.
ditto	35½ ..	13 7	6.. Vivians.
ditto	35½ ..	13 7	6.. Freemans.
ditto	9 ..	15 0	0.. Vivians.
Tregothnan	90 ..	1 16	0.. ——
ditto	28 ..	1 14	0.. ——
W. Garland	36½ ..	9 11	6.. English Co.
ditto	36½ ..	9 11	6.. Freemans.
ditto	18½ ..	1 8	6.. English Co.
ditto	18½ ..	1 8	6.. P. Grenfells.
Wh. Alice	16 ..	4 3	6.. Freemans.
Gonnels Lake	9 ..	3 15	6.. English Co.

TOTAL PRODUCE.

Treweirne	494	——	£1449	0	0	Pountyndhal	129	——	£726	10	0
West Caradon	362	——	1071	0	0	Tregothnan Con.	156	——	165	3	0
Trethellan	242	——	814	0	0	Wh. Garland	90	——	252	19	0
Powey Consols	201	——	587	14	0	Wh. Alice	16	——	61	0	0
Pen Consols	180	——	527	1	0	Gonnels Lake	9	——	33	19	6
Holmbush	130	——	169	7	6						

Average standard, 1021 16s.—Average produce, 7¾.—Average price, 4l. 1s. 6d.—Quantity of ore, 1250 tons.—Quantity of fine copper, 148 tons 7 cwt.—Amount of money, about 6s. 6d.—Average standard of last sale, 1021. 1s.—Average produce, 7¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	161	£546 10 6
English Copper Company	2045	2220 6 0
Vivian and Sons	2414	667 4 0
Freemans and Co.	1784	2074 14 9
Grenfell and Sons	1284	1180 10 3
Sims, Willyams, Nevill, Brown, and Co.	2332	1161 0 6
Williams, Foster, and Co.	2764	1084 3 9
Total	tons 1069	£9,934 6 0

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—United Mines 167—South Caradon 103—Wheal Providence 400—Hallenbeagle 214—North Downas 215—Powey Consols 200—Treleigh Consols 126—Grenville 102 and 60. Ashtons 113—Treworras 102—Cosgillowes 91—Wheal Henry 76.—Total 1647 tons.

Copper ores for sale on Thursday week, at Bargull's Hotel, Pool.—Mines and Parcels.—Consols Mines 470—North Buckner 700—East Wheal Crofty 250—Par Consols 200—Wheal Seaton 200—South Wheal Basset 270—South Buckner, &c. 272—Holmbush 200—Powey Consols 200—West Wheal Jewel 120—East Pool 164—Wheal Treworras 110—Trebell 102—Wheal Clifford 80—South Wheal Francis 60—Godolphin 75—Wheal Harriet 60—Martin's Ore 17—Carn Camborne 7.—Total, 4406 tons.

SALE OF COPPER ORES AT SWANSEA.

Copper ores for sale August 20.—Chili 60—80—10—40—40—40—10—71—84—4. Cuba 110—100—100—98. Cobre 90—90—90—77—10—15. Rose Jane in Cobre 97—97—100—95. Bellyvoughyll 98—79—65—94—91. Bewshayes 99—74. Knockmahon 114. Carnebone 98—6. Tigroney 76. Cabonetta 89—81. Aberdovey 83—0.—Total 2481 tons.

WORK PERFORMED BY CORNISH ENGINES.

The number of pumping-engines reported for the month of July is 37—the quantity of coals consumed being 2260 tons, lifting, in the aggregate, 24,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 12,096,000 lbs. lifted 1 foot high by the consumption of a bushel of coal.—The following are those engines the work of which has exceeded the average:—

Mines.	Engines.	Cylinder.	Load in pounds.	Length of stroke.	Strokes per minute.	Consumption of coal to one.	Lbs. lifted 1 ft. by 1 lb. of coal.	Aver. quan. of water p. min.
G. W. Fortune	Pruspar 90 in.	9'7	96,540	10'1	9·0	1009	64,990,897	6207·9
Wh. Virgin	Taylor's 60 in.	5'0	35,157	10'1	7·79	1366	52,410,000	5169·0
Godolphin	Sims's 90 in.	9'0	76,500	11'0	7·4	1875	79,471,015	6224·9
Ditto	Roberts's 60 in.	5'0	75,477	10'0	7·0	2000	87,850,100	
Great Work	Lean, 90 in.	9'0	96,000	10'0	7·0	1440	99,990,484	7227·9
Wh. Vor	Harlaxton's 60 in.	5'0	100,482	10'4	9·0	2000	71,607,000	—
N. Basset	Dixon 70 in.	9'0	81,000	10'0	9·0	1710	97,411,000	6990·0
G. W. Crofty	Tregeseale, 80 in.	10'00	77,070	11'06	7·78	1003	88,109,015	1167·9
Carn Brea	Sloop's 90 in. (condensing)	9'0	60,877	10'0	9·0	934	76,879,140	5329·0
United Mines	Taylor's 63 in.	5'3	85,500	12.25	8·96	1887	93,966,875	5329·0
Ditto	Sims's 90 in.	9'0	19,850	10'0	9·0	497	66,674,000	
Ditto	Lean's 60 in.	10'0	69,441	11'0	9·0	2000	66,188,000	
Ditto	Fleming's 60 in.	5'0	117,000	12'0	9·0	2000	79,827,000	
United Mines	Williamson's 30	2'0	62,500	10'0	9·0	2179	81,000,147	4227·9
W. Fowey C.	Dennis's 90 in.	10'75	91,000	9'12	7·5	715	85,615,755	5219·9
Fowey Con.	Austin's 90 in.	9'05	89,700	12 10.5	9	2000	78,276,000	4229·9

LATEST CURRENT PRICES OF METALS.

LONDON, AUGUST 25, 1846.

		£	s.	d.		£	s. d.
Arsenic—On spot	ton	0	0 to 21	0	Copper—Old	per ft.	0	0 0½
" For winter		0	0 0	0	" Cake p. ton	82	0 0 to 84	0 0
Iron—English sheet		0	0 0	10	" Tile		0 0 0 to 82	0 0
" Swedish	per ft.	0	0	0	" S. American		0 0 0	72	0 0
Lead—English bar, &c.	p. ton	0	0	0	Tin—English, blocks, &c.	cwt.	3	12	0
" Red oxide		0	0 0	18	" " bars		0	0 0	0
" Sheet		0	0 0	19	" Foreign, Banca		3	3	0
" Shot		0	0 0	19	" " Straits		3	3	0
" Litharge		0	0 0	18	" " Peruvian		3	2	0
" Pig, No. 1, Wales		13	0	0	Tin plates, No. 27, p. box		1	7	0
" No. 1, Clyde		13	0	0	" No. IX.		1	12	0
For Foreign		0	0 0	0	" worse than p. box less				
Ammon. oxide		0	0 0	0	Lead—Sheet patent	p. ton	17	15	0
" "			——		" Shot, patent	0	0	0	19	0
" "	Crystal		——		" Red				17	10	0
" "	Acetate		——		" White				20	10	0
Iron—Swedish	keg	p. ton	10	0	Pig-Lead—English		16	15	0	17	0
"	Faggot		0 0	0	17	0	" Spanish		0	0	0	16	10
"	Russian		0 0	0	18	0	" American		0	0	0	——	
Quicksilver—English, shipping		lb.	0	0	0½								

REMARKS.—Considerable business has been done to Smith-fld., which has advanced to 4l. 4s. to 4l. per ton. Large sales have been made during the week at Dublin, 4l. 10s. to 4l. 17s. per ton.—In other metals nothing particular doing.

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the week ending Thursday last:—

Silver sent to Rotterdam	10,000	ounces
Silver sent to Hamburgh	17,170	"
Gold sent to Rotterdam	100	"

COAL MARKET, LONDON.

MONDAY.—Prices of coals per ton at the close of the market.—Bartlett's West Hartley 21—Clark's Hartley 21—Harrison's West Hartley 21 6—Hastings' Hartley 21—Hay and Nash 21—Original Wreckend Hetton 21—Ord's Redheugh 21 6—Pontop Wreckend 21—Rhymney (summerset) 21—Tanfield Moor Hetton's 21—Townley 21 6—West Pelton 21—West Wylam 21—Wharton 21—Wylam 21—Adams 21 6—Bewick's Hetton 21 6—Bolton 22 6—Lambton 22 6 and 23 6—Richmond 21 6 and 22 6—Russell's Hetton 21 6—Stanley 21 6—Stewart's 21 6—Wallsend 22—Hetton 21 6—Adelaide 21 6—Brough Hall 21 6—Gordon 21 6—Hetherton's Own 21—Hetton Vane 21 6—Vane 21—Vane Hetton 21 6—Brancepeth Ashcroche 20—Privet Hetton 21 6—Pocket Main 22 6—Stewart's Hetton Main 21—Hartley 21 6—Sunderland 21 6—Eight 21—Ships arrived, 46.

WEDNESDAY.—Adair's Main 21 6—Clark's Hartley 21—Harrison's West Hartley 21—Hastings' Hartley 21 6—New Pontop 21 6—Redheugh's Main 21 6—Old Tanfield 21 6—Old Pontop 21 6—Ravensworth's West Hartley 21—Regents (summerset) 21—Tanfield Moor Bewick's 21—Townley 21 6—West Hartley 21—West Wylam 21—Wharton's Hetton 21 6—Brough Hall 21 6—Gordon 21 6—Hetherton's Own 21—Hetton Vane 21 6—Lambton 22 6 and 23 6—Richmond 21 6—Russell's Hetton 21 6—Stewart's 21 6—Adelaide 21 6—Brancepeth 20—Hartley's Pontop 21 6—Hartley 22 6—Ravensworth Hospital West Hartley 21 6—Stanley 21 6—Eight 21—Ships arrived, 70.

FRIDAY.—Adair's Main 21 6—Clark's Hartley 21—Harrison's West Hartley 21—New Tanfield 21 6—Redheugh's Main 21 6—Old Pontop 21 6—Pontop Wreckend 21—Ravensworth's West Hartley 21—Regents (summerset) 21—West Hartley 21—West Wylam 21—Wharton's Hetton 21 6—Brough Hall 21 6—Gordon 21 6—Hetherton's Own 21—Hetton Vane 21 6—Lambton 22 6 and 23 6—Richmond 21 6—Russell's Hetton 21 6—Stewart's 21 6—Adelaide 21 6—Brancepeth 20—Hartley's Pontop 21 6—Hartley 22 6—Ravensworth Hospital West Hartley 21 6—Stanley 21 6—Eight 21—Ships arrived, 75.

WEST CARADON MINES.—We received the following from a correspondent just as we were going to press:—On Tuesday last, the cross-cut at the 132 fathom level intersected the north lode, and opened upon an excellent course of ore; this lode had not previously been seen under the accessible fathom level, which still continues rich. About thirty fathoms north of Wheal Jane's lode, a cross-cut has been driven, and our Virgin's lode at the accessible fathom level, which is considered to be worth from 12l. to 14l. per fathom. Both discoveries were effected the same day, and will greatly enhance the value of the shares, which already commands a great price—which it will be the unvarying encouragement for proprietors in South Caradon, and the Clare Mines on the west, a set of which has been recently obtained.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price
250	Andrew and Rosewarne	20	16
90	Ditto	—	12
4,000	Bedford	2½	2½
100	Botallack	175	340
10,000	British Iron	70	—
6,000	Clarrance	50	2
120	Brewer	—	67
5,000	Con. Trelool Mininglass	2½	½
128	Conbora	20	200
114	Charlestown	—	200
2,500	Canadian Lead Co.	5	6½
128	Comfort	—	20
2,560	Cook's Kitchen	—	16
1,000	Cara Brea	10	100
1,000	Callington	12	14
128	Caradon Consols	—	120
256	Caradon Copper Mine	—	10
128	Craig Brown	96	80
1,200	Combenartin	8½	14
1,000	Cara Perran	—	10
128	Dolcoath	—	110
10,000	Durham County Coal Co.	40	3 6
128	East Pool	—	120
64	East Wh. Crofty	—	400
128	East Wh. Rose	—	1500
128	Fowey Consols	—	102
2641	Grenville & St. Aubyn	—	80
1,000	Great Consols	1000	1600
1,000	Gonlgion	—	80
10,000	Hibernian	124	—
1,000	Holmbush	14	26
128	Hallenbeagle	—	80
1,000	Hawson	5	0
2,000	Isle of Sark (Guernsey)	15	—
128	Levant	—	200
128	Lanreth & Penstruthal	—	100
1,000	Lewis	0	4
10,000	Mining Co. of Ireland	7	14
128	Moodyn Mines	100	—
2400	Marke Valley	10	4
70	North Basset	—	200
256	North Hainbrook	—	10
128	North United	24	27
256	North Wheal Rose	24	34
	Northern Coal Co.	25	24
128	Newquay	15	20
512	West Fowey Consols	40	55
128	Par Consols	—	1200
128	Penhalvor Moor	16	60
10,000	Rhymney Iron	50	0
256	Rose Consols	20	0
400	South Towan	10	1½
57	Spartan Moor	70	—
1,000	Stray Park / Cambrian Vean	45	15
128	South Wheal Basset	—	200
128	South Caradon	—	700
256	St. Austell Consols	2	10
256	South Wheal Rose	2	3
128	South Treviscal	8	15
128	Trethellan	—	170
128	Treworras	—	60
64	Treworrow	—	200
128	Tokenbury	72	110
256	Treasure Consols	—	120

Shares.	Company.	Paid.	Price
128	Trevinkey and Barrier	61	60
5,000	Trelegh Consols	8½	7
5,000	Tamar Consols	5	—
6,000	Tincroft	7	5
128	Trewellard	12	15
4,000	United Mines	—	1000
5,000	Wicklow Copper	5	20
256	Wheal Francis	20	7
114	Wh. St. Andrew	60	70
128	Wheal Virgin	—	80
128	West Caradon	40	600
64	Wheal Vor	100	—
5,840	West Wheal Jewel	114	114
128	West Trethellan	5	20
128	Wheal Rose	5	20
256	West Wheal Trigue	—	8
1024	Wheal Harriet	4	—
128	Wheal Penrose	—	20
128	Wheal Providence	80	140
128	Wheal Gifford	—	200
128	Wheal Albert	10	12
128	West Basset	10	30
128	Wheal Ashford	—	20
128	Wheal Sisters	—	10
128	Wheal Seaton	—	150
128	Wheal Henry	—	25
4,000	Wheal Martha Consols	2	4
128	Wheal Treasury	4	60
256	Wheal Prudence	5	15
256	Wheal Norris	—	10
256	Wheal Trevor	6	5
128	Wheal Tregeare	—	12
128	Wheal Catherine	5	20
128	Wheal Providence	—	100
128	Wheal Robina	17½	17
256	West Wheal Treasury	5	0

FOREIGN MINES.

Shares.	Company.	Paid.	Price
5,000	Alton Mining Company	14½	4
10,000	Asturian Mining Co.	5	6½
10,000	Anglo Mexican Co.	100	37
3,574	Do. Subscription	20	0
5,000	Bolanos	100	—
12,000	Ditto Scrip	15	6½
10,000	Brazilian Imperial	25	7½
10,000	Bolivar	20	—
10,000	Ditto Scrip	15	—
10,000	Colombian Co. regis.	10	1
10,000	Cappoza Mining Co.	14	6
20,000	General Mining Assn.	20	6
6,321	Mexican Company	10	—
12,000	Real del Monte, regis.	20½	6
	Do. unregistered		5
	Ditto Red Debentures	—	—
	Ditto Black ditto	—	—
	Ditto Loan Scrip	100	1½
7,000	Royal Santiago	10	20
11,000	St. John d'el Rey	15	13½
40,274	United Mexican	20½	4

RAILWAY SHARE LIST AND TRAFFIC RETURNS.

Lines.	Length open.	Present exp. final cost.	Pd. on Shares.	Val. of Shares.	Last week's returns.	Last year.
Aberaman and Forfar Railway	15	£ 150,000	10	12	£179 1 0	£2307
Birmingham and Gloucester	15	1,400,000	100	104	2030 15 7	1995
Br